

FILE 'HCAPLUS' ENTERED AT 16:44:45 ON 19 MAR 2010

L1 16829 S GUAR OR GALACTOMANNAN OR (MANNO-OLIGOSACCHARIDE) OR MANNOOLIG  
L2 2476 S PROANTHOCYANIDIN  
L3 2 S L1 AND L2  
L4 20557 S GUAR OR GALACTOMANNAN OR (MANNO-OLIGOSACCHARIDE) OR MANNOOLIG  
L5 197633 S DIARRHEA OR PREBIOTIC OR PROBIOTIC OR ENTERIC OR INTESTINAL O  
L6 947 S L4 AND L5  
L7 4477 S (MANNO-OLIGOSACCHARIDE) OR MANNOOLIGOSACCHARIDE OR OLIGOMANNO  
L8 380 S L5 AND L7

FILE 'REGISTRY' ENTERED AT 16:47:14 ON 19 MAR 2010

EXP METNYL-A-MANNO/CN  
EXP METHYL-A-MANNO/CN  
EXP METHYL-MANNO/CN  
EXP METHYL MANNO/CN  
EXP AMNNOOLIGO/CN  
EXP MANNOOLIGO/CN

FILE 'HCAPLUS' ENTERED AT 16:49:01 ON 19 MAR 2010

L9 177 S L8 AND (PY<2004 OR AY<2004 OR PRY<2004)  
L10 602569 S BACTERIA OR BACTERIAL OR PREBIOTIC OR PROBIOTIC  
L11 64 S L9 AND L10

FILE 'REGISTRY' ENTERED AT 16:59:32 ON 19 MAR 2010

EXP PROANTHOCYANIDIN/CN  
EXP PROANTHOCYANIDIN A2/CN  
L12 12 S E1-E12  
EXP PROANTHOCYANIDIN B3/CN  
L13 10 S E3-E12  
EXP PROANTHOCYANIDIN CT/CN  
L14 9 S E4-E12  
EXP PROANTHOCYANIDIN T5/CN  
L15 5 S E1-E6

FILE 'HCAPLUS' ENTERED AT 17:01:24 ON 19 MAR 2010

L16 255 S L12/THU OR L13/THU OR L14/THU OR L15/THU  
L17 270725 S CHOLESTEROL OR HYPERCHOLESTEROLEM? OR HYPERLIPIDEM? OR ATHERO  
L18 20 S L16 AND L17  
L19 6 S L18 AND (PY<2004 OR AY<2004 OR PRY<2004)  
L20 587 S L4 AND L17  
L21 350 S L20 AND (PY<2003 OR AY<2003 OR PRY<2003)

FILE 'REGISTRY' ENTERED AT 17:03:06 ON 19 MAR 2010

EXP PARTIALLY HYDROLYZED GUAR/CN  
EXP PHGG/CN

FILE 'HCAPLUS' ENTERED AT 17:03:39 ON 19 MAR 2010

L22 112 S MANNO-OLIGO? OR MANNOOLIGO  
L23 1084 S MANNO-OLIGO? OR MANNOOLIGO?  
L24 20 S L17 AND L23  
L25 68 S PHGG OR (PARTIALLY HYDROLYZED GUAR)  
L26 16 S L17 AND L25  
L27 36 S L24 OR L26  
L28 8 S L27 AND (PY<2004 OR AY<2004 OR PRY<2004)  
L29 0 S METHYL(4A)((MANNOOLOGOSACCHARIDE) OR (MANNO-OLIGOSACCHRIDE) O  
L30 1 S METHYL(4A)((MANNOOLIGOSACCHARIDE) OR (MANNO-OLIGOSACCHARIDE)  
L31 22 S METHYL AND ((MANNOOLIGOSACCHARIDE) OR (MANNO-OLIGOSACCHARIDE)  
L32 14 S L31 AND (PY<2004 OR AY<2004 OR PRY<2004)

=> file hcaplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.22	0.22

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FILE COVERS 1907 - 19 Mar 2010 VOL 152 ISS 13  
 FILE LAST UPDATED: 18 Mar 2010 (20100318/ED)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s guar or galactomannan or (manno-oligosaccharide) or mannooligosaccharide or oligomannose

13804 GUAR  
 3542 GALACTOMANNAN  
 2850 MANNO  
 34691 OLIGOSACCHARIDE  
 42 MANNO-OLIGOSACCHARIDE  
 (MANNO(W)OLIGOSACCHARIDE)  
 260 MANNOOLIGOSACCHARIDE  
 369 OLIGOMANNOSE

L1 16829 GUAR OR GALACTOMANNAN OR (MANNO-OLIGOSACCHARIDE) OR MANNOOLIGOSACCHARIDE OR OLIGOMANNOSE

=> s proanthocyanidin  
 L2 2476 PROANTHOCYANIDIN

=> s l1 and l2  
 L3 2 L1 AND L2

=> d l3 1-2 ti abs bib

L3 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Large molecules as anti-adhesive compounds against pathogens  
 AB Anti-adhesive compds. are potential prophylactic tools in alternative treatment regimes against bacterial infection, as bacterial adhesion is

commonly mediated by carbohydrate-protein interactions between surface adhesions of microorganisms and the host cell. The use of exogenous polyvalent, high-mol. carbohydrates and tannin-like plant-derived compds. should antagonize the adhesive interaction. A range of carbohydrates and carbohydrate- and proanthocyanidin-enriched plant exts. were screened for potential anti-adhesive effects against *Helicobacter pylori*, *Campylobacter jejuni*, *Porphyromonas gingivalis* and *Candida albicans* in different in-situ assays on primary tissue. The adhesion of *H. pylori* on human stomach tissue was effectively blocked by glucuronic acid-enriched polysaccharides from immature okra fruits (*Abelmoschus esculentus*). These compds. also had strong in-vitro effects against *C. jejuni* (inhibition up to 80%), but were ineffective in an in-vivo study in infected chicken broilers due to metabolism in the gastrointestinal system. Polysaccharides from *Glycyrrhiza glabra*, also enriched with glucuronic acid, showed strong anti-adhesive properties against *H. pylori* and *P. gingivalis* (inhibition 60-70%). *Pelargonium sidoides* extract, containing mainly polymeric proanthocyanidins, was effective against *H. pylori* in a dose-dependent manner. Due to the multifunctional adhesive strategy of *C. albicans*, no effective compds. were detected against this yeast. Structure-activity relationships are presented and the potential in-vivo use of carbohydrate-based anti-adhesives is discussed.

AN 2007:636466 HCAPLUS <<LOGINID::20100319>>  
 DN 147:203161  
 TI Large molecules as anti-adhesive compounds against pathogens  
 AU Wittschier, N.; Lengsfeld, C.; Vortheims, S.; Stratmann, U.; Ernst, J. F.; Verspohl, E. J.; Hensel, A.  
 CS Institute for Pharmaceutical Biology and Phytochemistry, University of Muenster, Muenster, D-48149, Germany  
 SO Journal of Pharmacy and Pharmacology (2007), 59(6), 777-786  
 CODEN: JPPMAB; ISSN: 0022-3573  
 PB Pharmaceutical Press  
 DT Journal  
 LA English  
 OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)  
 RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Cosmetic composition for protecting the scalp from free radicals  
 AB The title composition comprises an aqueous dispersion, emulsion, or hydrogel containing  
 0.5-30 weight% enzymic radical scavenger and 0.1-20 weight% water-soluble or -dispersible film-forming agent (shellac and/or dextrin). Thus, a radical scavenger complex comprised phospholipids 7, quebracho extract (containing proanthocyanidin oligomers and gallic acid) 2, silkworm extract (containing cecropin, amino acids, and vitamins) 1, acerola (*Malpighia punicifolia*) fruit extract 1, vitamin C 0.5, and vitamin A 0.5% in a gel base containing Carbomer, EtOH, and glycerin. This complex 30.0,  $\alpha$ -dextrin 5.0,  $\beta$ -dextrin 2.5,  $\gamma$ -dextrin 5.0, preservative 0.5, and H<sub>2</sub>O to 100 weight% were combined to produce a scalp spray.

AN 2000:553206 HCAPLUS <<LOGINID::20100319>>  
 DN 133:155161  
 TI Cosmetic composition for protecting the scalp from free radicals  
 IN Herrling, Thomas; Groth, Norbert; Golz-Berner, Karin; Zastrow, Leonhard  
 PA Coty B. V., Neth.  
 SO Eur. Pat. Appl., 7 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI  EP 1025835      A2    20000809      EP 2000-250030      20000131
    EP 1025835      A3    20010801
    EP 1025835      B1    20050323
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    DE 19905127      A1    20000810      DE 1999-19905127      19990201
    AT 291414        T    20050415      AT 2000-250030      20000131
    ES 2239575      T3    20051001      ES 2000-250030      20000131
PRAI DE 1999-19905127  A    19990201
OSC.G  1      THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT  5      THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
                ALL CITATIONS AVAILABLE IN THE RE FORMAT

```

=> s guar or galactomannan or (manno-oligosaccharide) or mannooligosaccharide or oligomannose or isomalto? or (iso-malto?)

```

    13804 GUAR
    3542 GALACTOMANNAN
    2850 MANNO
    34691 OLIGOSACCHARIDE
        42 MANNO-OLIGOSACCHARIDE
            (MANNO(W)OLIGOSACCHARIDE)
        260 MANNOOLIGOSACCHARIDE
        369 OLIGOMANNOSE
        3803 ISOMALTO?
197983 ISO
52028 MALTO?
    40 ISO-MALTO?
        (ISO(W)MALTO?)
L4      20557 GUAR OR GALACTOMANNAN OR (MANNO-OLIGOSACCHARIDE) OR MANNOOLIGOSA
        CCHARIDE OR OLIGOMANNOSE OR ISOMALTO? OR (ISO-MALTO?)

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=> s diarrhea or prebiotic or probiotic or enteric or intestinal or microflora

```

    26021 DIARRHEA
    5049 PREBIOTIC
    5974 PROBIOTIC
    18248 ENTERIC
    143513 INTESTINAL
    14558 MICROFLORA
L5      197633 DIARRHEA OR PREBIOTIC OR PROBIOTIC OR ENTERIC OR INTESTINAL OR
        MICROFLORA

```

=> s l4 and l5

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L6      947 L4 AND L5

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=> s (manno-oligosaccharide) or mannooligosaccharide or oligomannose or isomalto? or (iso-malto?)

```

    2850 MANNO
    34691 OLIGOSACCHARIDE
        42 MANNO-OLIGOSACCHARIDE
            (MANNO(W)OLIGOSACCHARIDE)
        260 MANNOOLIGOSACCHARIDE
        369 OLIGOMANNOSE
        3803 ISOMALTO?
197983 ISO
52028 MALTO?
    40 ISO-MALTO?
        (ISO(W)MALTO?)
L7      4477 (MANNO-OLIGOSACCHARIDE) OR MANNOOLIGOSACCHARIDE OR OLIGOMANNOSE
        OR ISOMALTO? OR (ISO-MALTO?)

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=> s 15 and 17  
L8 380 L5 AND L7

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	17.84	18.06
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.70	-1.70

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STRUCTURE FILE UPDATES: 18 MAR 2010 HIGHEST RN 1211569-35-5  
DICTIONARY FILE UPDATES: 18 MAR 2010 HIGHEST RN 1211569-35-5

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TSCA INFORMATION NOW CURRENT THROUGH January 8, 2010.

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experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> exp metnyl- $\alpha$ -manno/cn

E1	1	METNIC NICKING ENDONUCLEASE (BACILLUS HALODURANS STRAIN C-12 5 GENE METNICG)/CN
E2	1	METNORADRENALINE/CN
E3	0 -->	METNYL-A-MANNO/CN
E4	1	METO/CN
E5	1	METOASE/CN
E6	1	METOBEN/CN
E7	1	METOBENZURON/CN
E8	1	METOBENZURON-2,4-D MIXT./CN
E9	1	METOBENZURON-BROMOXYNIL-2,4-D MIXT./CN
E10	1	METOBROMURON/CN
E11	1	METOBROMURON-ALACHLOR MIXT./CN
E12	1	METOBROMURON-FLUORODIFEN MIXTURE/CN

=> exp methyl- $\alpha$ -manno/cn

E1	2	METHYL-A-IONONE/CN
E2	1	METHYL-A-L-LYXOPYRANOSIDE/CN
E3	0 -->	METHYL-A-MANNO/CN
E4	1	METHYL-A-METHYL-7-(METHYLAMINO)-2-FLUORENEACETATE/CN
E5	1	METHYL-A-METHYLBENZYL SULFONE/CN
E6	1	METHYL-A-NAPHTHYL-P-TOLYLARSINE/CN
E7	1	METHYL-A-NAPHTHYLPHENYLARSINE/CN

E8	1	METHYL-B, B'-BINAPHTHYL/CN
E9	1	METHYL-B, B-DICHLORODIETHYLAMINE/CN
E10	1	METHYL-B- (7-METHOXY-4-BENZOFURANOYL) -PROPIONATE/CN
E11	1	METHYL-B-BIS (B' -CHLOROETHYL) AMINOVINYLBKETONE/CN
E12	1	METHYL-B-CYANOETHYLDIETHOXYSILANE/CN

=> exp methyl-manno/cn

E1	1	METHYL-M-TOLYLHYDRAZONOMESOXALONITRILE/CN
E2	1	METHYL-M-TOLYLTHIOCARBAMOYL CHLORIDE/CN
E3	0 -->	METHYL-MANNO/CN
E4	1	METHYL-N, -5-DIMETHYLANTHRANILATE/CN
E5	1	METHYL-N- ( (2- (ISOPROPOXYCARBONYL) PYRIDIN-3-YL) CARBONYL) GLYCINE/CN
E6	1	METHYL-N- (2-OXO-2-PHENYLETHYL) TEREPHTHALAMATE/CN
E7	1	METHYL-N- (3- (2-METHYL-2-PROPENOIC ACID) PROPYL ESTER) CARBAMATE/CN
E8	1	METHYL-N- (4- (2-METHYL-2-PROPENOIC ACID) BUTYL ESTER) CARBAMATE/CN
E9	1	METHYL-N- (6- (2-PROPENOIC ACID) HEXYL ESTER) CARBAMATE/CN
E10	1	METHYL-N-ACETYL-2, 3, 4, 7-TETRA-O-ACETYL-B-THIOLINCOSAMINIDE/CN
E11	1	METHYL-N-ACETYL-2, 3, 4-TRI-O-ACETYL-7 (S) -2' -ACETOXYETHOXY-7-DEOXY-A-THIOLINCOSAMINIDE/CN
E12	1	METHYL-N-ACETYL-2, 3, 4-TRI-O-ACETYL-7-DEOXY-7 (S) -2' -METHOXYETHOXY-A-THIOLINCOSAMINIDE/CN

=> exp methyl manno/cn

E1	1	METHYL MANGIFEROLATE/CN
E2	1	METHYL MANGIFERONATE/CN
E3	0 -->	METHYL MANNO/CN
E4	1	METHYL MANNOSIDE/CN
E5	1	METHYL MANNOSIDURONIC ACID/CN
E6	1	METHYL MARASMATE/CN
E7	1	METHYL MARGARATE/CN
E8	1	METHYL MARRUBIATE/CN
E9	1	METHYL MASLINATE/CN
E10	1	METHYL MASLINATE 2-ACETATE/CN
E11	1	METHYL MASTICADIENOLATE/CN
E12	1	METHYL MASTICADIENONATE/CN

=> exp amnnooligo/cn

E1	1	AMNISTRONE/CN
E2	1	AMNIZOL SOLUBLE/CN
E3	0 -->	AMNNOOLIGO/CN
E4	1	AMNO/CN
E5	1	AMNO TLD/CN
E6	1	AMNOLAKE/CN
E7	1	AMNOS/CN
E8	1	AMNOSED/CN
E9	1	AMNOTL/CN
E10	1	AMNUCOL/CN
E11	1	AMO 1-20/CN
E12	1	AMO 140/CN

=> exp mannooligo/cn

E1	1	MANNONOYL CHLORIDE, PENTAACETATE/CN
E2	1	MANNONOYL CHLORIDE, PENTAACETATE, L-/CN
E3	0 -->	MANNNOOLIGO/CN
E4	1	MANNOPENTAPOSE/CN
E5	1	MANNOPENTAPOSE SULFATE/CN
E6	1	MANNOPENTAPOSE-DI (N-ACETYL-D-GLUCOSAMINE) /CN

E7	1	MANNOPEPTIMYCIN A/CN
E8	1	MANNOPEPTIMYCIN B/CN
E9	1	MANNOPEPTIMYCIN Δ/CN
E10	1	MANNOPEPTIMYCIN E/CN
E11	1	MANNOPEPTIMYCIN Γ/CN
E12	1	MANNOPEPTIN A/CN

=> file hcaplus

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FULL ESTIMATED COST	1.47	19.53
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.70

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FILE COVERS 1907 - 19 Mar 2010 VOL 152 ISS 13  
 FILE LAST UPDATED: 18 Mar 2010 (20100318/ED)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

HCAPLUS now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

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=> s 18 and (PY<2004 or AY<2004 or PRY<2004)
      24050509 PY<2004
      4827719 AY<2004
      4301330 PRY<2004
L9      177 L8 AND (PY<2004 OR AY<2004 OR PRY<2004)
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=> s bacteria or bacterial or prebiotic or probiotic
      385981 BACTERIA
      331655 BACTERIAL
      5049 PREBIOTIC
      5974 PROBIOTIC
L10    602569 BACTERIA OR BACTERIAL OR PREBIOTIC OR PROBIOTIC
```

=> s 19 and 110

L11 64 L9 AND L10

=> d 111 1-64 ti abs bib

L11 ANSWER 1 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Liquid compositions comprising non-digestible oligosaccharides and green tea catechins

AB A method and liquid compns. for restoring and/or maintaining colon functionality. The method consists in administering to a human being a liquid composition including an effective amount of a non-digestible oligosaccharide, at least one green tea catechin, at least one antioxidant comprising ascorbic acid and a buffering agent mixture having a buffering capacity of at least about 50 mM, said liquid composition being in a pH range

of

from about 4.8 to about 5.2. A method for making the liquid compns. is also disclosed. Thus, a liquid composition comprises fructooligosaccharides 7.3, green tea extract 0.22, carrageenan 0.25, sodium citrate dehydrate 0.86, citric acid anhydrous 0.4, methylparaben 0.12, sorbitol 70% 4.0, xylitol 5.0, disodium edentate 0.1, cranberry juice powder 0.35, ascorbic acid 0.20, and purified water 80.9 weight%.

AN 2009:93184 HCAPLUS <<LOGINID::20100319>>

DN 150:120385

TI Liquid compositions comprising non-digestible oligosaccharides and green tea catechins

IN Simmons, Donald L.; Dong, Cunji

PA Dnp Canada Inc., Can.

SO U.S. Pat. Appl. Publ., 11pp., Cont.-in-part of U.S. Ser. No. 601.241.  
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20090022852	A1	20090122	US 2008-193280	20080818 <--
	US 20040047921	A1	20040311	US 2003-601241	20030620 <--
PRAI	US 2002-390150P	P	20020621	<--	
	US 2003-601241	B2	20030620	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L11 ANSWER 2 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Composition containing bacillus bifidus and lactobacillus

AB A composition comprises oligosaccharides (fructooligosaccharide, xylooligosaccharide, lactulose-oligosaccharide, isomaltooligosaccharide, soybean oligosaccharide, etc.), barley leaves powder (emerald green powder obtained from tender wheat seedling), spirulina, bacteria powders, and additives. The bacteria powders are prepared from the whole cells or cell extract of dead bacteria including Bifidobacterium (e.g. Bifidobacterium infantis, Bifidobacterium longum, Bifidobacterium bifidum, Bifidobacterium adolescentis, and Bifidobacterium breve) and lactobacillus (e.g. Lactobacillus acidophilus, Lactobacillus fermentum, and Lactobacillus plantarum). The composition can regulate the intestinal microbial flora, and has the functions of regulating immunity, inhibiting tumor, relieving constipation, regulating blood lipid, improving gastrointestinal function, prolonging ageing process, and protecting health.

AN 2007:947525 HCAPLUS <<LOGINID::20100319>>

TI Composition containing bacillus bifidus and lactobacillus

IN Chen, Xiushu; Yi, Jidong; Zhang, Bo

PA Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu

CODEN: CNXXEV

DT Patent  
LA Chinese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	CN 1208620	A	19990224	CN 1997-114220	19970815 <--
PRAI	CN 1997-114220		19970815	<--	
OSC.G	1	THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)			

L11 ANSWER 3 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Health protecting preparation made from bacteria, and preparation method thereof

AB A microbial preparation, JUNYIKANG, is prepared by fermenting one or more of bifidobacteria and one or more of intestinal beneficial bacteria (such as Clostridium butyricum, Lactobacillus acidophilus, and Streptococcus thermophilus); centrifuging to obtain wet thalli; dispersing in skimmed milk powder; lyophilizing to obtain powder; and mixing with one or more of bifidus factors to make capsule, microcapsule, granule, tablet, and oral liquid Various vitamins and trace elements can be added. The above bifidobacteria are selected from bifidobacteria infantis CGMCC 0313-2, Bifidobacterium longum CGMCC 0313-5, Bifidobacterium breve CGMCC 0313-6, and Bifidobacterium bifidum CGMCC 0313-7. The bifidus factors can promote the growth and proliferation of bifidobacteria and are selected from oligosaccharide or natural plant extract (such as oranges and tangerines peel extract, Radix Ginseng extract, Folium Camelliae sinensis extract, Fructus Lycii extract, and Fructus Schisandrae Chinensis extract) or saccharide substance (such as soy oligosaccharide, fructooligosaccharide, xylooligosaccharide, galactose-oligosaccharide, lactulose-oligosaccharide, isomaltooligosaccharide, glucose oligosaccharide, melitose, stachyose, and chitosan). The preparation has the functions of improving intestinal ecol. balance, promoting beneficial bacteria growth, and inhibiting pathogenic bacteria propagation; and has therapeutic effects on dysentery, constipation, gastrointestinal dysfunction, and diarrhea. This preparation can be used as food, health product, or food additive.

AN 2007:941099 HCAPLUS <<LOGINID::20100319>>

TI Health protecting preparation made from bacteria, and preparation method thereof

IN Cui, Yunlong; Cui, Yunyu

PA Beijing Dongfang Baixin Biological Tech. Co., Ltd., Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu

CODEN: CNXXEV

DT Patent  
LA Chinese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	CN 1192360	A	19980909	CN 1997-115093	19970801 <--
PRAI	CN 1997-115093		19970801	<--	

L11 ANSWER 4 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Manufacture of milk powder products containing active Bifidobacterium and isomaltooligosaccharide

AB In this invention, freeze-dried Bifidobacterium powder and isomaltooligosaccharide are used as additives to produce milk powder products that have immunity promoting and intestinal bacterial flora conditioning effects. In the milk powder products, the viable count of Bifidobacterium is above 10<sup>7</sup> cfu/g, and the water content is below 5%. The active bacteria can be selected from Bifidobacterium infantis, Bifidobacterium longum, Bifidobacterium

bifidum, Bifidobacterium adolescentis, and Bifidobacterium breve.

AN 2005:1334148 HCAPLUS <<LOGINID::20100319>>

DN 144:107334

TI Manufacture of milk powder products containing active Bifidobacterium and isomaltooligosaccharide

IN Huo, Guicheng; Meng, Xiangchen; Yang, Lijie

PA Northeast Agricultural University, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 21 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	CN 1602708	A	20050406	CN 2003-10103233	20031103 <--
	CN 1305383	C	20070321		
PRAI	CN 2003-10103233		20031103	<--	

L11 ANSWER 5 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI An oral liquid for preventing and treating human and animal diarrhea and dysentery and its preparation method

AB An oral liquid for preventing and treating diarrhea and dysentery comprises probiotic solution, Chinese medicinal decoction and Chinese medicinal decoction. The preparation method comprises: artificial culturing probiotics; decocting processed Chinese medicinal materials, concentrating decoction, and cooling; and mixing Chinese medicinal decoction, probiotic solution and probiotics, and packaging. The probiotics comprise photosynthetic bacteria, lactic acid bacteria, or Bacillus bifidus. The Chinese medicinal decoction is prepared from at least one material with effect of invigorating spleen and stomach selected from Atractylodis Rhizoma, Radix Angelicae Dahuricae, Rhizoma Atractylodis, Radix Astragali, and Zingiberis Rhizoma, and at least one antidiarrheal material selected from Fructus Crataegi, Mume Fructus, Fructus Hippophae, Fructus Schisandrae, Galla Chinensis, and Pericarpium Granati by decocting. The probiotics comprise one or two of mannan oligosaccharides, fructooligosaccharide, or isomaltose. The preparation can prevent and treat human and animal diarrhea, and also has effect of improving immunity.

AN 2005:1238286 HCAPLUS <<LOGINID::20100319>>

TI An oral liquid for preventing and treating human and animal diarrhea and dysentery and its preparation method

IN Cao, Jintang

PA Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	CN 1589868	A	20050309	CN 2003-157620	20030831 <--
	CN 100374148	C	20080312		
PRAI	CN 2003-157620		20030831	<--	

L11 ANSWER 6 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Prebiotic effect analysis

AB A method for evaluating or quantifying the prebiotic capability of a fiber or for identifying a prebiotic substance is disclosed which comprises (a) evaluating or quantifying the effect by the tested fiber or substance on the growth and/or modification of fecal bacterial population, and (b) quantifying at least one product

resulting from the fermentation of the tested fiber or substance and/or quantifying the rate of assimilation of the tested fiber or substance. Pharmaceutical and nutritional compns. are also disclosed.

AN 2005:347188 HCAPLUS <<LOGINID::20100319>>  
 DN 142:404215  
 TI Prebiotic effect analysis  
 IN Vulevic, Jelena; Gibson, Glenn R.; Rastall, Robert  
 PA Novartis A.-G., Switz.  
 SO PCT Int. Appl., 41 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005035781	A1	20050421	WO 2004-EP10997	20041001 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004280375	A1	20050421	AU 2004-280375	20041001 <--
	AU 2004280375	B2	20080515		
	CA 2539583	A1	20050421	CA 2004-2539583	20041001 <--
	EP 1670934	A1	20060621	EP 2004-765756	20041001 <--
	EP 1670934	B1	20081029		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	JP 2007507214	T	20070329	JP 2006-530071	20041001 <--
	US 20070196890	A1	20070823	US 2004-573603	20041001 <--
	AT 412767	T	20081115	AT 2004-765756	20041001 <--
	ZA 2006001723	A	20070725	ZA 2006-1723	20060227 <--
	HK 1094231	A1	20090710	HK 2006-113346	20061205 <--
PRAI	GB 2003-23089	A	20031002	<--	
	GB 2004-1867	A	20040128		
	WO 2004-EP10997	W	20041001		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)  
 RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Oligosaccharide-containing nutritional compositions that inhibit pathogen adhesion to intestinal cells  
 AB Saccharides (particularly oligosaccharides) are used as inhibitors of pathogen adhesion to mammalian cells (especially gut cells) and may be used in food and nutritional compns. Compds. are screened for inhibition of adhesion of specific pathogens (verocytotoxic and enteropathogenic Escherichia coli) to the colonic epithelium (HT 29 cell line) without adversely affecting the colonic microflora or adhesion of probiotic organisms. Compds. with suitable activity include mannoooligosaccharides, caseinoglycomacropetides, chitooligosaccharides, galactooligosaccharides, etc.  
 AN 2005:283268 HCAPLUS <<LOGINID::20100319>>  
 DN 142:335365

TI Oligosaccharide-containing nutritional compositions that inhibit pathogen  
adhesion to intestinal cells  
IN Rhoades, Jonathan Robert; Rastall, Robert; Gibson, Glenn R.  
PA Novartis Ag, Switz.  
SO PCT Int. Appl., 31 pp.  
CODEN: PIXXD2

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2005027663	A2	20050331	WO 2004-EP10469	20040917 <--
	WO 2005027663	A3	20050707		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, VZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	BR 2004003979	A	20060221	BR 2004-3979	20040920 <--
	US 20060287276	A1	20061221	US 2006-572664	20060320 <--
PRAI	GB 2003-21996	A	20030919	<--	
	WO 2004-EP10469	W	20040917		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Compositions for improvement of bioavailability of effective ingredients  
in general food, health food, or dietary supplements

AB The compns. contain ingredients which are effective for conditioning of  
the intestinal environment and/or the antioxidant activity. The  
ingredients effective for conditioning of the intestinal  
environment may contain probiotics, prebiotics, and/or biogenics such as  
lactic acid bacteria, oligosaccharides, dietary fiber, or  
bifidus factor, and the ingredients effective for conditioning of the  
antioxidant activity may be vitamins, carotenoids, and minerals. The  
bioavailability of effective ingredients in general food, health food, or  
dietary supplements is improved by intake of the intestinal  
environment- and/or antioxidant activity-conditioning ingredients.

AN 2005:119962 HCAPLUS <<LOGINID::20100319>>

DN 142:197042

TI Compositions for improvement of bioavailability of effective ingredients  
in general food, health food, or dietary supplements

IN Kawade, Yuji; Osakabe, Naomi; Murashima, Koichiro; Baba, Seigo; Kawabata,  
Keiko

PA Meiji Seika Kaisha, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2005034135	A	20050210	JP 2004-52598	20040227 <--
PRAI	JP 2003-187715	A	20030630	<--	

L11 ANSWER 9 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI The effects of dietary additives on the growth performance and occurrence  
 of resistant bacteria in weanling pigs  
 AB Unavailable  
 AN 2005:83836 HCAPLUS <<LOGINID::20100319>>  
 DN 143:132457  
 TI The effects of dietary additives on the growth performance and occurrence  
 of resistant bacteria in weanling pigs  
 AU Pulliam, January Beth  
 CS Univ. of Tennessee, Knoxville, TN, USA  
 SO (2003) 159 pp. Avail.: UMI, Order No. DA3119409  
 From: Diss. Abstr. Int., B 2004, 65(1), 4  
 DT Dissertation  
 LA English

L11 ANSWER 10 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Use of isomalt (mixture of 1,6-GPS and 1,1-GPM) as a prebiotic  
 for the production of food and feed additives and medicaments used for the  
 treatment of intestinal diseases, among other things  
 AB The invention relates to a novel use of a mixture of  
 6-O- $\alpha$ -D-glucopyranosyl-D-sorbitol (1,6-GPS) and  
 1-O- $\alpha$ -D-glucopyranosyl-D-mannitol (1,1-GPM) as a bifidogenic  
 prebiotic optionally containing a probiotic, to be used as  
 or for producing a food item, semi-luxury food, fodder, or a medicament.  
 Said medicament is used for the treatment and/or prevention of  
 intestinal diseases such as chronic inflammatory  
 intestinal diseases, intestinal cancer,  
 bacterial intestinal infections, among other things.  
 AN 2004:1154570 HCAPLUS <<LOGINID::20100319>>  
 DN 142:73725  
 TI Use of isomalt (mixture of 1,6-GPS and 1,1-GPM) as a prebiotic  
 for the production of food and feed additives and medicaments used for the  
 treatment of intestinal diseases, among other things  
 IN Klingeberg, Michael; Kozianowski, Gunhild; Kunz, Markwart; Theis, Stephan  
 PA Suedzucker Aktiengesellschaft Mannheim/ochsenfurt, Germany  
 SO PCT Int. Appl., 55 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2004112505	A1	20041229	WO 2004-EP6030	20040604 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10328180	A1	20050113	DE 2003-10328180	20030616 <--
	AU 2004248895	A1	20041229	AU 2004-248895	20040604 <--
	CA 2527765	A1	20041229	CA 2004-2527765	20040604 <--
	EP 1641354	A1	20060405	EP 2004-739586	20040604 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				

CN 1802101	A	20060712	CN 2004-80016063	20040604 <--
BR 2004011528	A	20060801	BR 2004-11528	20040604 <--
JP 2006527586	T	20061207	JP 2006-515829	20040604 <--
ZA 2005009146	A	20070328	ZA 2005-9146	20040604 <--
IN 2005MN01273	A	20081024	IN 2005-MN1273	20051118 <--
KR 2006030042	A	20060407	KR 2005-724024	20051214 <--
MX 2005013815	A	20060313	MX 2005-13815	20051216 <--
NO 2006000185	A	20060315	NO 2006-185	20060111 <--
US 20060147500	A1	20060706	US 2006-561122	20060202 <--
PRAI DE 2003-10328180	A	20030616	<--	
WO 2004-EP6030	W	20040604		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Dietary supplements for dogs containing live bacterial cell preparations, etc., to prevent or relieve gastrointestinal diseases

AB The supplements contain beer yeasts, live bacterial cell preps., oligosaccharides, and tea exts. Thus, administration of tablets containing beer yeast powder, Bifidobacterium powder, Streptococcus faecalis powder, Bacillus natto, raffinose, and tea extract to dogs decreased incidence of diarrhea, etc.

AN 2004:1125132 HCAPLUS <<LOGINID::20100319>>

DN 142:55245

TI Dietary supplements for dogs containing live bacterial cell preparations, etc., to prevent or relieve gastrointestinal diseases

IN Matsuoka, Sayuri

PA Fanc1 Corporation, Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2004357505	A	20041224	JP 2003-156067	20030530 <--
PRAI	JP 2003-156067		20030530	<--	

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L11 ANSWER 12 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Lactobacillus-oligosaccharide combination for promoting digestive tract health.

AB The invention concerns a composition comprising a Lactobacillus strain and a non-digestible oligosaccharide for promotion of digestive tract health.

AN 2004:872645 HCAPLUS <<LOGINID::20100319>>

DN 141:365496

TI Lactobacillus-oligosaccharide combination for promoting digestive tract health.

IN Beer, Michael; Gibson, Glenn R.; Smejka, Christopher

PA Novartis Nutrition Ag, Switz.; University of Reading

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2004089115	A1	20041021	WO 2004-EP3736	20040407 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
 SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,  
 TD, TG

AU 2004228936 A1 20041021 AU 2004-228936 20040407 <--  
 AU 2004228936 B2 20070712  
 CA 2521380 A1 20041021 CA 2004-2521380 20040407 <--  
 EP 1613180 A1 20060111 EP 2004-726152 20040407 <--  
 EP 1613180 B1 20080123

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

BR 2004009362 A 20060425 BR 2004-9362 20040407 <--  
 CN 1784151 A 20060607 CN 2004-80012441 20040407 <--  
 JP 2006522766 T 20061005 JP 2006-505051 20040407 <--  
 NZ 542717 A 20061130 NZ 2004-542717 20040407 <--  
 AT 384448 T 20080215 AT 2004-726152 20040407 <--  
 ZA 2005007743 A 20071031 ZA 2005-7743 20050926 <--  
 MX 2005010862 A 20060330 MX 2005-10862 20051007 <--  
 US 20060165670 A1 20060727 US 2006-551107 20060320 <--

PRAI GB 2003-8104 A 20030408 <--  
 WO 2004-EP3736 W 20040407

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)  
 RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 13 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Nutritional compositions comprising probiotics.

AB The present invention provides a food or nutritional product for  
 consumption by individuals who want to maintain a healthy gastrointestinal  
 tract; the probiotic composition is efficacious in removing toxic  
 nitrogenous byproducts of metabolism Embodiments of the invention further  
 include health bars yogurt, yogurt-based products and foods that contain  
 one or more vitamins and/or minerals, in addition to carbohydrate, fat and  
 protein components.

AN 2004:681180 HCAPLUS <<LOGINID::20100319>>

DN 141:173344

TI Nutritional compositions comprising probiotics.

IN Ranganathan, Natarajan

PA USA

SO U.S. Pat. Appl. Publ., 7 pp., Cont.-in-part of U.S. Pat. Appl. 2002  
 187,134.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20040161422	A1	20040819	US 2003-689359	20031020 <--
	US 20010051150	A1	20011213	US 2000-557011	20000420 <--
	US 6706263	B2	20040316		
	US 20020187134	A1	20021212	US 2001-855346	20010515 <--
	US 6706287	B2	20040316		
	US 20040197352	A1	20041007	US 2004-803211	20040318 <--
	AU 2004277417	A1	20050414	AU 2004-277417	20040930 <--
	CA 2540467	A1	20050414	CA 2004-2540467	20040930 <--

WO 2005032591 A1 20050414 WO 2004-US32250 20040930 <--  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
SN, TD, TG  
EP 1675617 A1 20060705 EP 2004-789401 20040930 <--  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK  
CN 1871031 A 20061129 CN 2004-80031264 20040930 <--  
JP 2007507526 T 20070329 JP 2006-534116 20040930 <--  
US 20060257375 A1 20061116 US 2006-279159 20060410 <--  
PRAI US 1999-131774P P 19990430 <--  
US 2000-557011 A2 20000420 <--  
US 2001-855346 A2 20010515 <--  
US 2003-676558 A 20030930 <--  
US 2003-676622 A 20030930 <--  
US 2003-689359 A2 20031020 <--  
US 2004-803211 A 20040318  
WO 2004-US32250 W 20040930  
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L11 ANSWER 14 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Foods for inoculating and proliferating useful bacteria in  
intestine, health foods containing them, and manufacture of them  
AB Title foods are manufactured by mixing agar powder and useful  
intestinal bacteria powder with water, then granulation.  
Thus, ingestion of granules containing agar and Enterococcus faecium reduced  
serum neutral fat level, increased the number of the bacteria in  
feces, and decreased the odor.  
AN 2004:631395 HCAPLUS <<LOGINID::20100319>>  
DN 141:156481  
TI Foods for inoculating and proliferating useful bacteria in  
intestine, health foods containing them, and manufacture of them  
IN Murakami, Noriko  
PA Seikatsu Bunkasha Y. K., Japan  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1  
PATENT NO. KIND DATE APPLICATION NO. DATE  
-----  
PI JP 2004215561 A 20040805 JP 2003-6162 20030114 <--  
JP 4135505 B2 20080820  
PRAI JP 2003-6162 20030114 <--

L11 ANSWER 15 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Prebiotic compositions containing oligosaccharides for control  
of intestinal disorders such as inflammatory bowel disease,  
diarrhea and constipation.  
AB The present invention concerns nutritional compns. comprising  
oligosaccharides for controlling inflammatory bowel disease and related  
disorders, such as diarrhea and constipation.  
AN 2004:513455 HCAPLUS <<LOGINID::20100319>>

DN 141:53289  
 TI Prebiotic compositions containing oligosaccharides for control  
 of intestinal disorders such as inflammatory bowel disease,  
 diarrhea and constipation.  
 IN Gibson, Glenn R.; Beer, Michael  
 PA Novartis Nutrition Ag, Switz.  
 SO PCT Int. Appl., 29 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004052121	A1	20040624	WO 2003-EP14087	20031211 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
	US 20040131659	A1	20040708	US 2003-721652	20031125 <--
	CA 2508693	A1	20040624	CA 2003-2508693	20031211 <--
	AU 2003294835	A1	20040630	AU 2003-294835	20031211 <--
	EP 1571923	A1	20050914	EP 2003-785796	20031211 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 2003017272	A	20051108	BR 2003-17272	20031211 <--
	CN 1731938	A	20060208	CN 2003-80105558	20031211 <--
	JP 2006509797	T	20060323	JP 2004-558076	20031211 <--
	NZ 540576	A	20070330	NZ 2003-540576	20031211 <--
	RU 2358474	C2	20090620	RU 2005-121665	20031211 <--
	ZA 2005004385	A	20060726	ZA 2005-4385	20050530 <--
	MX 2005006266	A	20050819	MX 2005-6266	20050610 <--
PRAI	GB 2002-29015	A	20021212	<--	
	WO 2003-EP14087	W	20031211	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 OSC.G 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)  
 RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 16 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Use of prebiotics for preventing or treating oxidative stress  
 AB The invention discloses the use of a prebiotic for the preparation of  
 food preps., nutraceuticals, or pharmaceutical compns. intended for the  
 prevention or the treatment of oxidative stress in particular related to  
 the consumption of fructose. The invention also discloses a food preparation  
 including simple carbohydrates, in particular fructose, in combination  
 with prebiotics.  
 AN 2004:512196 HCAPLUS <<LOGINID::20100319>>  
 DN 141:65134  
 TI Use of prebiotics for preventing or treating oxidative stress  
 IN Gueux, Elyett; Rayssiguier, Yves; Busserolles, Jerome; Mazur, Andre  
 PA Institut National De La Recherche Agronomique Inra, Fr.  
 SO Fr. Demande, 17 pp.  
 CODEN: FRXXBL  
 DT Patent  
 LA French  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2848783	A1	20040625	FR 2002-16136	20021218 <--
	FR 2848783	B1	20050513		
	CA 2510766	A1	20040708	CA 2003-2510766	20031217 <--
	WO 2004056210	A1	20040708	WO 2003-FR3770	20031217 <--
	W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW	
	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
	AU 2003300651	A1	20040714	AU 2003-300651	20031217 <--
	EP 1571926	A1	20050914	EP 2003-813628	20031217 <--
	R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK	
	JP 2006510703	T	20060330	JP 2004-561561	20031217 <--
	US 20060252725	A1	20061109	US 2005-539632	20051109 <--
PRAI	FR 2002-16136	A	20021218	<--	
	WO 2003-FR3770	W	20031217	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 17 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Constipation treatment compositions containing roasted cereals, oligosaccharides, etc.

AB The compns., which normalize intestinal flora, show long-lasting stomach-filling effect, and promote bowel movement, comprise (a)  $\geq 1$  roasted cereal selected from soybean, barley, brown rice, glutinous rice, Setalia italica, Panicum miliaceum, and corn 10-30, (b) water-soluble dietary fibers except those contained in the roasted cereal 10-60, (c) oligosaccharides 5-25, (d) tea polyphenols 0.01-1, and (e) lactic acid bacteria 0.01-1%. Thus, granules were manufactured from a composition containing indigestible dextrin 55, isomaltooligosaccharides 21, roasted soybean 4, roasted barley 4, roasted brown rice 4, roasted glutinous rice 3, roasted Setalia italica 3, roasted corn 3, roasted chestnut 2, catechin 0.5, and lactic acid bacteria (Bifidobacterium, Staphylococcus faecalis, and Lactobacillus acidophilus) 0.5% using H2O as binder. Administration of the granules to healthy adult volunteers increased defecation frequency.

AN 2004:450766 HCAPLUS <<LOGINID::20100319>>

DN 141:12292

TI Constipation treatment compositions containing roasted cereals, oligosaccharides, etc.

IN Iwanaga, Shoji

PA Nikken Corporation, Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004155727	A	20040603	JP 2002-324157	20021107 <--
PRAI	JP 2002-324157		20021107	<--	

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L11 ANSWER 18 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Hydrogenated condensed palatinose preparation and use in food and drug manufacture.  
AB The present invention concerns procedures for the production of condensed palatinose in hydrogenated form and use of the hydrogenated condensed palatinose in manufacture of food and drugs.  
AN 2004:249237 HCAPLUS <<LOGINID::20100319>>  
DN 140:286532  
TI Hydrogenated condensed palatinose preparation and use in food and drug manufacture.  
IN Haji, Begli Alireza; Klingeberg, Michael; Kunz, Markwart; Vogel, Manfred  
PA Suedzucker Aktiengesellschaft Mannheim/Ochsenfurt, Germany  
SO Ger. Offen., 38 pp., Division of Ger. Offen. 10,242,062.  
CODEN: GWXXBX  
DT Patent  
LA German  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	DE 10262005	A1	20040325	DE 2002-10262005	20020911 <--
	DE 10262005	B4	20051110		
	DE 10242062	A1	20040325	DE 2002-10242062	20020911 <--
	DE 10242062	B4	20070215		
PRAI	DE 2002-10242062	A2	20020911	<--	
	DE 2002-10262005	A2	20020911	<--	

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L11 ANSWER 19 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI hydrogenated condensed palatinose preparation and use in food and drug manufacture  
AB The present invention concerns procedures for the production of condensed palatinose in hydrogenated form and use of the hydrogenated condensed palatinose in manufacture of food and drugs.  
AN 2004:246919 HCAPLUS <<LOGINID::20100319>>  
DN 140:286531  
TI hydrogenated condensed palatinose preparation and use in food and drug manufacture  
IN Haji, Begli Alireza; Klingeberg, Michael; Kunz, Markwart; Vogel, Manfred  
PA Suedzucker Aktiengesellschaft Mannheim/Ochsenfurt, Germany  
SO Ger. Offen., 44 pp., Division of Ger. Offen. 10,262,005  
CODEN: GWXXBX  
DT Patent  
LA German  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	DE 10242062	A1	20040325	DE 2002-10242062	20020911 <--
	DE 10242062	B4	20070215		
	DE 10262005	A1	20040325	DE 2002-10262005	20020911 <--
	DE 10262005	B4	20051110		
	CA 2498659	A1	20040415	CA 2003-2498659	20030902 <--
	WO 2004031202	A2	20040415	WO 2003-EP9725	20030902 <--
	WO 2004031202	A3	20040506		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003271575	A1	20040423	AU 2003-271575	20030902 <--
EP 1539779	A2	20050615	EP 2003-753376	20030902 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003014247	A	20050726	BR 2003-14247	20030902 <--
CN 1681831	A	20051012	CN 2003-821413	20030902 <--
CN 1324039	C	20070704		
JP 2006512298	T	20060413	JP 2004-540575	20030902 <--
US 20050222406	A1	20051006	US 2005-527523	20050310 <--
PRAI DE 2002-10262005	A2	20020911	<--	
DE 2002-10242062	A2	20020911	<--	
WO 2003-EP9725	W	20030902	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L111 ANSWER 20 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Use of prebiotics for the prevention of onset of Type II diabetes

AB The invention discloses the use of prebiotics for the preparation of food or pharmaceutical compns. intended for the prevention of the appearance of type II diabetes in subjects presenting a predisposition to develop this type of diabetes, as well as the food and pharmaceutical compns. containing these prebiotics.

AN 2004:218529 HCAPLUS <<LOGINID::20100319>>

DN 140:264511

TI Use of prebiotics for the prevention of onset of Type II diabetes

IN Monsan, Pierre; Valet, Philippe; Remaud, Simeon Magali; Saulnier, Blache  
Jean Sebastien

PA Institut National de la Recherche Agronomique INRA, Fr.

SO Fr. Demande, 22 pp.

CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2844453	A1	20040319	FR 2002-11389	20020913 <--
	FR 2844453	B1	20060519		
	WO 2004024167	A2	20040325	WO 2003-FR2705	20030912 <--
	WO 2004024167	A3	20040513		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2003282156	A1	20040430	AU 2003-282156	20030912 <--	
EP 1539195	A2	20050615	EP 2003-773775	20030912 <--	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
ZA 2005002976	A	20060628	ZA 2005-2976	20050413 <--	
US 20060100172	A1	20060511	US 2005-527819	20051011 <--	

US 7618951 B2 20091117  
PRAI FR 2002-11389 A 20020913 <--  
WO 2003-FR2705 W 20030912 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)  
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 21 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Medicament, food supplement, and fodder additive containing plant-origin antioxidants and prebiotics.

AB The invention relates to a medicament, food supplement, or fodder additive containing prebiotics and plant-based antioxidants, especially oligosaccharides and grapeseed and herb exts.

AN 2004:182715 HCAPLUS <<LOGINID::20100319>>

DN 140:198447

TI Medicament, food supplement, and fodder additive containing plant-origin antioxidants and prebiotics.

IN Berkulin, Wilhelm; Pischel, Ivo

PA Finzelberg G.m.b.H. & Co. K.-G., Germany

SO PCT Int. Appl., 8 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	WO 2004017979	A2	20040304	WO 2003-EP9068	20030815 <--
	WO 2004017979	A3	20040422		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2003266285	A1	20040311	AU 2003-266285	20030815 <--
	EP 1530479	A2	20050518	EP 2003-792330	20030815 <--
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRAI	EP 2002-18416	A	20020816 <--		
	WO 2003-EP9068	W	20030815 <--		
OSC.G	1				THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT	6				THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
					ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 22 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Composite compositions containing multivalent antibodies and saccharides and Chinese medicines for preventing and treating diarrhea of young animals

AB The compound preparation is composed of multivalent antibody 2-15; antibody protectant 5-25; oligofructose 0.5-5, oligomannose 0.5-5, yeast polysaccharide 0.5-5 parts and Chinese herb medicines. The multivalent antibody obtained from egg yolk is prepared by immunizing hen with Salmonella, Escherichia coli, Bacillus welchii, or the deactivated bacteria of rabbit plaque virus-Bacillus pastorianus-Bacillus welchii, bradsot-lamb dysentery-cataplexy-enteric toxemia-

infectious hepatitis sequestrans vaccine, infectious gastroenteritis vaccine, and rotavirus-induced diarrhea vaccine 2 w before laying; immunizing with multivalent vaccine of *E. coli* and deactivated vaccine of pseudorabies virus 2 w after the first immunization; immunizing with infectious gastroenteritis vaccine, rotavirus-induced diarrhea vaccine, and diarrhea vaccine 4 w after the first immunization; immunizing with the vaccines and bacteria of the first immunization 6 w after the first immunization; collecting egg 8 w after the first immunization, separating egg white and yolk; adjusting egg yolk with 0.1-1.0N HCl in water to pH 5.0-5.8, precipitating with NaCl

(0.5-0.9%)

and polyethylene glycol 6,000 (3.5-5.0% w/v) for 10-20 min, standing for 0.5-24 h, centrifuging at 4-20°C for 10-30 min; precipitating supernatant with polyethylene glycol 6,000 (12-15% w/v) at pH 6.8-7.5, centrifuging to obtain crude product and purifying via precipitation. The Chinese medicines are composed of 5 or more of the following: *Phellodendron* 0.5-10, *Thuja orientalis* leaf 0.5-10, *Coptis chinensis* 0.5-15, *cortex fraxini* 0.5-8, *Pulsatilla chinensis* 0.5-8, *Atractylodes chinensis* 0.5-10, *Saussurea* 0.5-10, *Sophora flavescens* 0.5-10, *Plantago asiatica* 0.5-5, and *Alisma orientale* 0.5-5 parts, which are obtained by extracting the raw plants with water, concentrating, and spray drying.

AN 2004:110903 HCAPLUS <<LOGINID::20100319>>

DN 141:28614

TI Composite compositions containing multivalent antibodies and saccharides and Chinese medicines for preventing and treating diarrhea of young animals

IN Zhang, Yongfei

PA Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 18 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	CN 1370575	A	20020925	CN 2002-100132	20020109 <--
	CN 1153591	C	20040616		
PRAI	CN 2002-100132		20020109	<--	

L11 ANSWER 23 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Prebiotics affect nutrient digestibility but not faecal ammonia in dogs fed increased dietary protein levels

AB Increased dietary protein content and less digestible protein sources can lead to bad fecal odor. The effects of adding prebiotics to dog diets enriched with animal-derived protein sources on apparent digestibilities and fecal ammonia concns. were studied. In 3 consecutive periods, 8 healthy beagle dogs were fed com. diet gradually supplemented with up to 50% meat and bone meal (MBM), greaves meal (GM), or poultry meal (PM). Afterwards, 3% fructooligosaccharides or isomaltooligosaccharides were substituted for 3% of the total diet. The added animal protein sources did not decrease much the apparent N digestibility, but oligosaccharides did. The bacterial N content (as % of dry matter) in feces was highest in the oligosaccharide groups, followed by the protein-supplemented groups, and lowest in controls. When the apparent N digestibility was corrected for bacterial N, no significant differences were noted anymore, except for the GM group where the corrected N digestibility was still lower after oligosaccharide supplementation. The fecal ammonia levels were increased by added protein or oligosaccharides in the MBM and GM groups, but not in the PM group. When the apparent N digestibility data are interpreted, a correction for bacterial N should be considered, especially when prebiotics are added

to the diet. The oligosaccharides did not decrease the fecal ammonia concns. as expected.

AN 2003:1013518 HCAPLUS <<LOGINID::20100319>>

DN 140:216799

TI Prebiotics affect nutrient digestibility but not faecal ammonia in dogs fed increased dietary protein levels

AU Hesta, M.; Roosen, W.; Janssens, G. P. J.; Millet, S.; De Wilde, R.

CS Laboratory of Animal Nutrition, Faculty of Veterinary Medicine, Ghent University, Merelbeke, 9820, Belg.

SO British Journal of Nutrition (2003), 90(6), 1007-1014

CODEN: BJNUAV; ISSN: 0007-1145

PB CABI Publishing

DT Journal

LA English

OSC.G 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 24 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Encapsulation in LentiKats of Dextranucrase from *Leuconostoc mesenteroides* NRRL B-1299, and its Effect on Product Selectivity

AB Insol. (cell-bound) dextranucrase from *Leuconostoc mesenteroides* B-1299 was encapsulated in highly elastic and stable hydrogels formed by polyvinyl alc. The gelation was carried out by controlled partial drying at room temperature, resulting in lens-shaped particles, called LentiKats. A similar recovery of activity (approx. 55%) was achieved when compared with entrapment in calcium alginate gels. Under reaction conditions, the protein leakage in LentiKats was reduced from 18% to 4% by pre-treatment of the dextranucrase with glutaraldehyde. The immobilized dextranucrases were tested in the acceptor reaction with Me  $\alpha$ -D-glucopyranoside. The conversion to oligosaccharides using Lenticat-dextranucrase was higher than that obtained for alginate-dextranucrase, probably due to the reduction of diffusional limitations derived from its lenticular shape. In addition, a shift of selectivity towards the synthesis of oligosaccharides containing  $\alpha(1\rightarrow2)$  bonds was observed for the Lenticat-biocatalysts. These non-digestible compds. are supposed to be specifically fermented by beneficial species of the human microflora (prebiotic effect). The Lenticat-entrapped dextranucrase can be efficiently reused in this process at least for five cycles of 24 h.

AN 2003:989606 HCAPLUS <<LOGINID::20100319>>

DN 140:320054

TI Encapsulation in LentiKats of Dextranucrase from *Leuconostoc mesenteroides* NRRL B-1299, and its Effect on Product Selectivity

AU Gomez De Segura, Aranzazu; Alcalde, Miguel; Plou, Francisco J.;

Remaud-Simeon, Magali; Monsan, Pierre; Ballesteros, Antonio

CS Departamento de Biocatalisis Instituto de Catalisis y Petroleoquimica, CSIC, Madrid, 28049, Spain

SO Biocatalysis and Biotransformation (2003), 21(6), 325-331

CODEN: BOBOEQ; ISSN: 1024-2422

PB Taylor & Francis Ltd.

DT Journal

LA English

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 25 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Development of a quantitative tool for the comparison of the prebiotic effect of dietary oligosaccharides

AB Aims: To develop a quant. equation [prebiotic index (PI)] to aid

the anal. of prebiotic fermentation of com. available and novel prebiotic carbohydrates in vitro, using previously published fermentation data. Methods: The PI equation is based on the changes in key bacterial groups during fermentation. The bacterial groups incorporated into this PI equation were bifidobacteria, lactobacilli, clostridia and bacteroides. The changes in these bacterial groups from previous studies were entered into the PI equation in order to determine a quant. PI score. PI scores were then compared with the qual. conclusions made in these publications. In general the PI scores agreed with the qual. conclusions drawn and provided a quant. measure. Conclusions: The PI allows the magnitude of prebiotic effects to be quantified rather than evaluations being solely qual. Significance and Impact of the Study: The PI equation may be of great use in quantifying prebiotic effects in vitro. It is expected that this will facilitate more rational food product development and the development of more potent prebiotics with activity at lower doses.

AN 2003:889276 HCAPLUS <<LOGINID::20100319>>

DN 139:363694

TI Development of a quantitative tool for the comparison of the prebiotic effect of dietary oligosaccharides

AU Palframan, R.; Gibson, G. R.; Rastall, R. A.

CS Food Microbial Sciences Unit, School of Food Biosciences, The University of Reading, Reading, Berkshire, UK

SO Letters in Applied Microbiology (2003), 37(4), 281-284

CODEN: LAMIE7; ISSN: 0266-8254

PB Blackwell Publishing Ltd.

DT Journal

LA English

OSC.G 34 THERE ARE 34 CAPLUS RECORDS THAT CITE THIS RECORD (34 CITINGS)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 26 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI The use of dead-end and cross-flow nanofiltration to purify prebiotic oligosaccharides from reaction mixtures

AB Nanofiltration (NF) of model sugar solns. and com. oligosaccharide mixts. were studied in both dead-end and cross-flow modes. Preliminary trials, with a dead-end filtration cell, demonstrated the feasibility of fractionating monosaccharides from disaccharides and oligosaccharides in mixts., using loose nanofiltration (NF-CA-50, NF-TFC-50) membranes. During the nanofiltration purification of a com. oligosaccharide mixture, yields

of 19% for the monosaccharides and 88% for di, and oligosaccharides were obtained for the NF-TFC-50 membrane after four filtration steps, indicating that removal of the monosaccharides is possible, with only minor losses of the oligosaccharide content of the mixture. The effects of pressure, feed concentration, and filtration temperature were studied in similar expts.

carried out in a cross-flow system, in full recycle mode of operation. The rejection rates of the sugar components increased with increasing pressure, and decreased with both increasing total sugar concentration in the feed and increasing temperature. Continuous diafiltration (CD) purification of model

sugar solns. and com. oligosaccharide mixts. using NF-CA-50 (at 25°C) and DS-5-DL (at 60°) membranes, gave yield values of 14 to 18% for the monosaccharide, 59 to 89% for the disaccharide and 81 to 98% for the trisaccharide present in the feed. The study clearly demonstrates the potential of cross flow nanofiltration in the purification of oligosaccharide mixts. from the contaminant monosaccharides.

AN 2003:878653 HCAPLUS <<LOGINID::20100319>>

DN 141:107866

TI The use of dead-end and cross-flow nanofiltration to purify  
prebiotic oligosaccharides from reaction mixtures  
AU Grandison, Alistair S.; Goulas, Athanasios K.; Rastall, Robert A.  
CS School of Food Biosciences, The University of Reading, Reading, RG6 6AP,  
UK  
SO Songklanakarin Journal of Science and Technology (2002),  
24(Suppl.), 915-928  
CODEN: SJSTA2  
PB Songklanakarin Journal of Science and Technology  
DT Journal  
LA English  
OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)  
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 27 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Herbal extract and preparation thereof

AB A process for preparing a herbal extract comprises the steps of mixing herbal  
matter with water to produce an aqueous extract solution, adding a nutritive  
supplement capable of supporting bacterial fermentation to the solution,  
seeding the resulting mixture with probiotic bacteria,  
and incubating the seeded mixture to effect fermentation of the herbal matter.

A

mixture containing artichoke powder 20, dandelion (*Taraxacum officinale*) 20,  
strawberry leaf powder 20, yeast extract 1.87, peptone from pancreatically  
0.125, dextrose 1.87, blackstrap molasses 0.625 g/L and *Lactobacillus*  
*acidophilus* was used to prepare herbal extract of the invention.

AN 2003:777103 HCAPLUS <<LOGINID::20100319>>

DN 139:281199

TI Herbal extract and preparation thereof

IN Teasdale, Steve; Lafrance, Corinne

PA Can.

SO U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 20030185811	A1	20031002	US 2001-776870	20010206 <--
	AU 2002226224	A1	20020819	AU 2002-226224	20020117 <--
PRAI	US 2001-776870	A	20010206	<--	
	WO 2002-CA55	W	20020117	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L11 ANSWER 28 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Prebiotic oligosaccharides via alternansucrase acceptor  
reactions

AB Alternansucrase synthesizes an alternating  
 $\alpha$ -(1 $\rightarrow$ 3),  $\alpha$ -(1 $\rightarrow$ 6)-D-glucan via glucosyl transfer  
from sucrose. It also synthesizes oligosaccharides, containing both types of  
linkages, when acceptor sugars are present. We have used alternansucrase  
to synthesize oligosaccharides from maltose, maltodextrins, maltitol,  
cellobiose, raffinose, melibiose, lactose, gentiobiose and other  
carbohydrate acceptors. Anal. of the products shows that alternansucrase  
is better at catalyzing acceptor reactions when compared to  
dextransucrase, and that the structures of the products differ. Whereas  
dextransucrase generally makes only a single product from any given  
acceptor, alternansucrase often makes two or more, and in higher yields.  
Several of these oligosaccharide acceptor products have been isolated and

tested for their ability to support the growth of probiotic bacteria, including selected strains of Bifidobacterium spp. and Lactobacillus spp. Certain acceptor products supported growth of probiotic strains but did not serve as substrates for undesirable bacteria such as Salmonella choleraesuis, Clostridium perfringens, or Escherichia coli.

AN 2003:571572 HCAPLUS <<LOGINID::20100319>>

DN 140:302361

TI Prebiotic oligosaccharides via alternansucrase acceptor reactions

AU Cote, Gregory L.; Holt, Scott M.; Miller-Fosmore, Candace

CS Fermentation Biotechnology Research Unit, National Center for Agricultural Utilization Research, Agricultural Research Service, U.S. Department of Agriculture, Peoria, IL, 61604, USA

SO ACS Symposium Series (2003), 849(Oligosaccharides in Food and Agriculture), 76-89

CODEN: ACSMC8; ISSN: 0097-6156

PB American Chemical Society

DT Journal

LA English

OS CASREACT 140:302361

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 29 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI In vitro digestibility and fermentation of mannoooligosaccharides from coffee mannan

AB Digestibility of mannoooligosaccharides obtained from thermal hydrolysis of spent coffee grounds was examined by in vitro digestion method. Mannoooligosaccharides were resistant to human salivary  $\alpha$ -amylase, artificial gastric juice, porcine pancreatic enzymes and rat intestinal mucous enzymes. Fermentation products of mannoooligosaccharides in human large intestine were estimated by in vitro fecal incubation method. Mannoooligosaccharides were fermented by human fecal bacteria and the products of fermentation were short chain fatty acids. Acetic, propionic and n-butyric acids were the main short chain fatty acids as end fermentation products. These results suggest that mannoooligosaccharides are indigestible saccharides and are converted to short chain fatty acids in human large intestine. The short chain fatty acids are thought to improve the large intestinal environment. Moreover, they are absorbed and utilized by the host as an energy source.

AN 2003:455300 HCAPLUS <<LOGINID::20100319>>

DN 139:179252

TI In vitro digestibility and fermentation of mannoooligosaccharides from coffee mannan

AU Asano, Ichiro; Hamaguchi, Kengo; Fujii, Shigeyoshi; Iino, Hisakazu

CS Research and Development, Ajinomoto General Foods Inc., Mie, 513-8632, Japan

SO Food Science and Technology Research (2003), 9(1), 62-66

CODEN: FSTRFS; ISSN: 1344-6606

PB Japanese Society for Food Science and Technology

DT Journal

LA English

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 30 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Pet food containing colostrum, a probiotic, and a prebiotic

AB A feed composition with health benefits, particularly for the development of the gastrointestinal tract during weaning in puppies or kittens, comprises colostrum, a probiotic, and a prebiotic. Thus, a dairy treat may include 43% sucrose, 30% hydrogenated vegetable fat, 15% colostrum, 5% yogurt powder, 3% prebiotic, 2% probiotic, and other ingredients. Lactobacillus acidophilus may be used as the probiotic.

AN 2003:396643 HCAPLUS <<LOGINID::20100319>>

DN 138:400863

TI Pet food containing colostrum, a probiotic, and a prebiotic

IN Giffard, Catriona Julie; Kendall, Peter

PA Mars Incorporated, USA

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2003041512	A1	20030522	WO 2002-GB5053	20021108 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002339112	A1	20030526	AU 2002-339112	20021108 <--
	AU 2002339112	B2	20071011		
	GB 2382528	A	20030604	GB 2002-26137	20021108 <--
	GB 2382528	B	20040505		
	EP 1446023	A1	20040818	EP 2002-777492	20021108 <--
	EP 1446023	B1	20090225		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	JP 2005508647	T	20050407	JP 2003-543412	20021108 <--
	AT 423475	T	20090315	AT 2002-777492	20021108 <--
	US 20050079244	A1	20050414	US 2004-495289	20041123 <--
	AU 2008200052	A1	20080131	AU 2008-200052	20080107 <--
	US 20080260893	A1	20081023	US 2008-34190	20080409 <--
PRAI	GB 2001-27152	A	20011112	<--	
	GB 2001-27528	A	20011116	<--	
	AU 2002-339112	A3	20021108	<--	
	WO 2002-GB5053	W	20021108	<--	
	US 2004-495289	B1	20041123		
OSC.G	9	THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)			
RE.CNT	10	THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD			
		ALL CITATIONS AVAILABLE IN THE RE FORMAT			

L11 ANSWER 31 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Effects of isomalto-oligosaccharides on broiler performance and intestinal microflora

AB The effects of dietary isomaltooligosaccharides (IMO) on broiler chicken growth performance and intestinal microflora were studied. Male Arbor Acres chickens (n=360) were fed basal diet with 0 (control), 0.3, 0.6, 0.9, or 1.2% IMO. The chickens had access to feed and water ad libitum during the 7-wk experiment At the end of the experiment, the

thymus index and viable counts of Lactobacillus, Escherichia coli, and total aerobic bacteria in the digestive tract were determined. The digesta short-chain fatty acid (SCFA) levels were determined by GC. The dietary IMO enhanced growth performance during the initial 3 wk, but no further effects were seen during the remaining 4 wk of the experiment. Isobutyrate levels in the crop content and acetate levels in the duodenum digesta were decreased by IMO supplementation. Isovalerate levels in the duodenum digesta were decreased in the 0.3 and 0.6% IMO groups, whereas the jejunum butyrate and isobutyrate levels in the 0.3% IMO group were higher than in the other groups. The facultative microflora of the crop and cecum was not affected by IMO feeding. The thymus index was increased in chickens fed 0.3% IMO.

AN 2003:328854 HCAPLUS <<LOGINID::20100319>>

DN 139:68444

TI Effects of isomalto-oligosaccharides on broiler performance and intestinal microflora

AU Zhang, W. F.; Li, D. F.; Lu, W. Q.; Yi, G. F.

CS National Feed Engineering Technology Research Center, China Agricultural University, Beijing, Peop. Rep. China

SO Poultry Science (2003), 82(4), 657-663

CODEN: POSCAL; ISSN: 0032-5791

PB Poultry Science Association, Inc.

DT Journal

LA English

OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 32 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Effect of pH and dose on the growth of gut bacteria on prebiotic carbohydrates in vitro

AB The effect of pH and substrate dose on the fermentation profile of a number of com.

prebiotics was analyzed in triplicate using stirred, pH and temperature controlled anaerobic batch culture fermns., inoculated with a fresh fecal slurry from one of three healthy volunteers. Bacterial nos. were enumerated using fluorescence in situ hybridization. The com. prebiotics investigated were fructooligosaccharides (FOS), inulin, galactooligosaccharides (GOS), isomaltooligosaccharides (IMO) and lactulose. Two pH values were investigated, i.e. pH 6 and 6.8. Doses of 1% and 2% (w/v) were investigated, equivalent to approx. 4 and 8 g per day, resp., in an adult diet. It was found that both pH and dose altered the bacterial composition. It was observed that FOS and inulin demonstrated the greatest bifidogenic effect at pH 6.8 and 1% (w/v) carbohydrate, whereas GOS, IMO and lactulose demonstrated their greatest bifidogenic effect at pH 6 and 2% (w/v) carbohydrate. From this we can conclude that various prebiotics demonstrate differing bifidogenic effects at different conditions in vitro.

AN 2003:289460 HCAPLUS <<LOGINID::20100319>>

DN 139:229331

TI Effect of pH and dose on the growth of gut bacteria on prebiotic carbohydrates in vitro

AU Palframan, Richard J.; Gibson, Glenn R.; Rastall, Robert A.

CS School of Food Biosciences, Food Microbial Sciences Unit, The University of Reading, Reading, RG6 6AP, UK

SO Anaerobe (2003), Volume Date 2002, 8(5), 287-292

CODEN: ANAEF8; ISSN: 1075-9964

PB Elsevier Science Ltd.

DT Journal

LA English

OSC.G 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)

RE.CNT 26        THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 33 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Effects of xylooligosaccharides on the growth of intestinal  
microflora  
AB To investigate the effects of xylooligosaccharides on the in vitro growth  
of intestinal bacteria, various species were  
cultivated individually on the m-PYF medium containing a carbon source (0.5%  
w/v) such as xylooligosaccharides, isomaltooligosaccharides,  
fructooligosaccharides and sucrose, resp. The health-promoting  
microorganisms such as Bifidobacterium bifidum, Bifidobacterium infantis,  
Bifidobacterium longum, Lactobacillus casei and Lactobacillus acidophilus  
grew more effectively by xylooligosaccharides than by other carbon source,  
though xylooligosaccharides inhibited the growth of Clostridium  
perfringens, Bacteroides fragilis, Escherichia coli, Staphylococcus aureus  
and Salmonella typhimurium. At the mixed culture xylooligosaccharides  
exerted a preferential stimulatory effects on nos. of the health-promoting  
microorganisms, while xylooligosaccharides inhibited populations of  
potential pathogens at relatively low level. Xylooligosaccharides also  
maintained the acidity of culture with Streptococcus mutans,  
caries-inducing bacteria, over pH 5.0. These results suggest  
that xylooligosaccharides selectively promote the growth of the  
health-promoting microorganisms in human intestine and prevent caries by  
inhibiting acid production from Streptococcus mutans.  
AN 2003:173157 HCAPLUS <<LOGINID::20100319>>  
DN 138:300298  
TI Effects of xylooligosaccharides on the growth of intestinal  
microflora  
AU Rhew, Bo-Kyoung; Lee, Ji-Wan; Lee, Chang-Seung; Hyun, Seang-Il; Park,  
Youn-Je; Ahn, Jun-Bae; Yang, Chang-Kun; Yoon, Sewang  
CS Department of Biotechnology, R&D Center, TS Corporation, Incheon, S. Korea  
SO Han'guk Misaengmul-Saengmyongkong Hakhoechi (2002), 30(4),  
380-387  
CODEN: HMHAAS  
PB Korean Society for Microbiology and Biotechnology  
DT Journal  
LA Korean

OSC.G 2        THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L11 ANSWER 34 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Effects of supplemental fructooligosaccharides plus mannanoligosaccharides  
on immune function and ileal and fecal microbial populations in adult dogs  
AB Eight adult dogs surgically fitted with ileal cannulas were fed 200 g of  
dry, extruded, Kibble diet twice daily. At each feeding, the dogs were  
given 1 g sucrose (placebo) or 2 g fructooligosaccharides (FOS) plus 1 g  
mannooligosaccharides (MOS) in gelatin capsules. The fecal, ileal, and  
blood samples were collected at the end of each 14-day period to measure  
microbial populations and immune parameters. FOS + MOS increased the  
fecal bifidobacteria and fecal and ileal lactobacilli counts. Dogs fed  
FOS + MOS also tended to have lower blood neutrophil and greater blood  
lymphocyte counts vs. dogs given placebo. Blood serum, fecal, and ileal  
Ig concns. were unchanged by the treatments. FOS + MOS beneficially  
altered the indexes of gut health by improving the ileal and fecal  
microbial ecol. FOS + MOS also altered immune functions by causing a  
shift in blood immune cells.  
AN 2002:904917 HCAPLUS <<LOGINID::20100319>>  
DN 138:122013  
TI Effects of supplemental fructooligosaccharides plus mannanoligosaccharides  
on immune function and ileal and fecal microbial populations in adult dogs  
AU Swanson, Kelly S.; Grieshop, Christine M.; Flickinger, Elizabeth A.;

Healy, H.-P.; Dawson, K. A.; Merchen, N. R.; Fahey, George C., Jr.  
CS Division of Nutritional Sciences, University of Illinois, Urbana, IL,  
61801, USA  
SO Archives of Animal Nutrition (2002), 56(4), 309-318  
CODEN: AANUET; ISSN: 0003-942X  
PB Taylor & Francis Ltd.  
DT Journal  
LA English  
OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)  
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 35 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Prebiotic oligosaccharides: evaluation of biological activities  
and potential future developments  
AB A review. Prebiotics are recognized for their ability to increase levels  
of 'health promoting' bacteria in the intestinal tract  
of humans or animals. This normally involves targeting the activities of  
bifidobacteria and/or lactobacilli. Non digestible oligosaccharides such  
as fructo-oligosaccharides, lactulose and traps-galacto-oligosaccharides  
seem to be efficacious prebiotics in that they confer the degree of  
selective fermentation required. Other oligomers are used as prebiotics in  
Japan e.g. xylo-oligosaccharides, soybean-oligosaccharides,  
isomalto-oligosaccharides. To determine prebiotic  
functionality, various in vitro systems may be used. These range from  
simple batch culture fermenters to complex models of the gastrointestinal  
tract. The definitive test however is an in vivo study. The advent of  
mol. based procedures in gut microbiol. has alleviated many concerns over  
the reliability of microbial characterization, in response to  
prebiotic intake. Techniques such as DNA probing and mol.  
fingerprinting are now being applied to both laboratory and human studies.  
These will help to further identify prebiotics that can be added to the  
diet and thereby fortify 'beneficial' bacteria. Such robust  
technologies can also be used in structure-function assays to identify the  
mechanisms behind prebiotic effects. Considerable research  
effort is currently being expended in developing so called 'second  
generation' prebiotics. These are forms that have multiple biol. activity  
that attempts health enhancement properties beyond the genus level  
stimulation of bifidobacteria or lactobacilli within the gut microflora.  
Examples include higher mol. weight oligomers than is conventional for  
prebiotics, such that targeted activities in the distal colon are feasible  
(the left side of the human large gut being the frequent area for colonic  
disorder). Glycobiol. is also developing anti-adhesive prebiotics that  
incorporate receptor sites for common gut pathogens and/or their  
activities. Through the use of reverse enzyme technol., as applied to  
 $\beta$ -galactosidase activity in prebiotics, oligosaccharides that enhance  
a lactic microflora at the species, rather than genus, level are  
possible. This review gives an account of how second generation  
prebiotics may be manufactured, through a variety of biotechnol. techniques,  
and tested for their biol. activity. The health attributes of such mols.  
as well as existing prebiotics is also discussed, with reference to specific  
target populations. The prebiotic concept is a much more recent  
development in dietary intervention for enhanced gut function than is  
prebiotics. Not surprisingly therefore, research developments are  
proceeding quickly. Because oligosaccharides can be added to a wide  
variety of foodstuffs, new functional food developments are continuing.  
It is important that these are tested using reliable methodologies and  
that any health effects are underpinned by realistic mechanisms of effect.  
AN 2002:783388 HCAPLUS <<LOGINID::20100319>>  
DN 138:168911  
TI Prebiotic oligosaccharides: evaluation of biological activities

and potential future developments

AU Rastall, Robert A.; Gibson, Glenn R.

CS Unit of Food Microbial Sciences, School of Food Biosciences, University of Reading, Reading, RG6 6AP, UK

SO Probiotics and Prebiotics (2002), 107-148. Editor(s): Tannock, Gerald W. Publisher: Caister Academic Press, Wymondham, UK. CODEN: 69DEL7; ISBN: 0-9542464-1-1

DT Conference; General Review

LA English

OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

RE.CNT 99 THERE ARE 99 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 36 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Preparation which contains sorbic acid and at least one nondigestible saccharide as a feed additive for livestock

AB A feed additive for livestock comprises sorbic acid at 10-90 and  $\geq 1$  nondigestible saccharide at 90-10 wt% of the additive. A probiotic microorganism may also be added to the feed.

AN 2002:591649 HCAPLUS <<LOGINID::20100319>>

DN 137:139887

TI Preparation which contains sorbic acid and at least one nondigestible saccharide as a feed additive for livestock

IN Raczek, Nico; Ter Meer, Hans-Ulrich

PA Nutrinova Nutrition Specialties & Food Ingredients GmbH, Germany

SO Eur. Pat. Appl., 10 pp. CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1228699	A1	20020807	EP 2002-1069	20020122 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	DE 10105305	A1	20020814	DE 2001-10105305	20010202 <--
	US 20020156046	A1	20021024	US 2002-56328	20020124 <--
	ZA 2002000726	A	20020802	ZA 2002-726	20020128 <--
	AU 2002014764	A	20020808	AU 2002-14764	20020201 <--
	JP 2002262779	A	20020917	JP 2002-25899	20020201 <--
PRAI	DE 2001-10105305	A	20010202	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 37 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Effects of supplemental fructooligosaccharides and mannanoligosaccharides on colonic microbial populations, immune function and fecal odor components in the canine

AB Dietary mannooligosaccharide (MOS) supplementation had pos. influence on intestinal microbial populations in dogs by decreasing the total aerobic counts. Fructooligosaccharide (FOS) supplementation decreased the concns. of selected protein catabolites formed in the large bowel of dogs. The combination of FOS + MOS decreased the concns. of putrefactive compds. found in feces. The tendency for increased blood serum IgA and lymphocyte concns. could result in enhanced systemic immune characteristics in dogs supplemented with MOS and FOS + MOS.

AN 2002:466937 HCAPLUS <<LOGINID::20100319>>

DN 138:72516

TI Effects of supplemental fructooligosaccharides and mannanoligosaccharides on colonic microbial populations, immune function and fecal odor components in the canine

AU Swanson, Kelly S.; Grieshop, Christine M.; Flickinger, Elizabeth A.; Merchen, Neal R.; Fahey, George C., Jr.

CS Division of Nutritional Sciences, University of Illinois, Urbana, IL, USA

SO Journal of Nutrition (2002), 132(6S-2), 1717S-1719S

CODEN: JONUAI; ISSN: 0022-3166

PB American Society for Nutritional Sciences

DT Journal

LA English

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 38 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Production of short-chain fatty acids and gas from various oligosaccharides by gut microbes of carp (*Cyprinus carpio* L.) in micro-scale batch culture

AB We studied the metabolism of various oligosaccharides by carp (*Cyprinus carpio*) hindgut microbes by measuring gas productivity and organic acid production in gut contents using a 50- $\mu$ l-scale batch culture system. Carp hindgut contents were incubated with 500  $\mu$ g each of raffinose, lactosucrose, kestose, lactulose, gentiobiose, 4'-galactosyllactose and 6'-galactosyllactose and soybean-, xylo-, and isomalto-oligosaccharides or none (blank culture) at 25 °C for 6 h. The time-course of gas release from the culture ( $Y$   $\mu$ l/culture) was expressed as an exponential function of incubation time ( $t$ ) [ $Y=A+B(1-e^{-kt})$ ];  $A$ ,  $B$  and  $k$  are consts. Potential production of gas ( $A+B$ ) from soybean-oligosaccharide and raffinose was larger than for the other saccharides except for kestose, and blank culture. The rate constant of gas ( $k$ ) for lactosucrose was larger than that for isomalto- and xylo-oligosaccharide, lactulose, kestose or blank culture. Net production of total SCFA (sum of acetic, propionic and n-butyric acid wts.) from cultures with soybean- and isomalto-oligosaccharides, raffinose, gentiobiose and lactosucrose was greater than that from blank culture. These results suggested that soybean-oligosaccharide and raffinose were potentially highly fermentable oligosaccharides for carp hindgut microbes. Chemical structures of oligosaccharides seem to play an important role in the fermentability. It is also likely that oligosaccharide utilization differs between mammals and teleosts.

AN 2002:383673 HCAPLUS <<LOGINID::20100319>>

DN 137:165975

TI Production of short-chain fatty acids and gas from various oligosaccharides by gut microbes of carp (*Cyprinus carpio* L.) in micro-scale batch culture

AU Kihara, Minoru; Sakata, Takashi

CS Central Research Institute, Maruha Corporation, Tsukuba, 300-4295, Japan

SO Comparative Biochemistry and Physiology, Part A: Molecular & Integrative Physiology (2002), 132A(2), 333-340

CODEN: CBPAB5; ISSN: 1095-6433

PB Elsevier Science Inc.

DT Journal

LA English

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 39 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI A comparative in vitro evaluation of the fermentation properties of prebiotic oligosaccharides

AB Comparison of in vitro fermentation properties of com. prebiotic oligosaccharides. Populations of predominant gut bacterial groups were monitored over 24 h of batch culture through fluorescent in-situ hybridization. Short-chain fatty acid and gas production were also measured. All prebiotics increased the nos. of bifidobacteria and most decreased clostridia. Xylo-oligosaccharides and lactulose produced the highest increases in nos. of bifidobacteria while fructo-oligosaccharides produced the highest populations of lactobacilli. Galacto-oligosaccharides (GOS) resulted in the largest decreases in nos. of clostridia. Short-chain fatty acid generation was highest on lactulose and GOS. Gas production was lowest on isomalto-oligosaccharides and highest on inulin. The oligosaccharides differed in their fermentation characteristics. Isomalto-oligosaccharides and GOS were effective at increasing nos. of bifidobacteria and lactate while generating the least gas. The study provides comparative data on the properties of com. prebiotics, allowing targeting of dietary intervention for particular applications and blending of oligosaccharides to enhance overall functionality.

AN 2001:921704 HCAPLUS <<LOGINID::20100319>>

DN 136:339904

TI A comparative in vitro evaluation of the fermentation properties of prebiotic oligosaccharides

AU Rycroft, C. E.; Jones, M. R.; Gibson, G. R.; Rastall, R. A.

CS Food Microbial Sciences Unit, School of Food Biosciences, The University of Reading, Reading, RG6 6AP, UK

SO Journal of Applied Microbiology (2001), 91(5), 878-887

CODEN: JAMIFK; ISSN: 1364-5072

PB Blackwell Science Ltd.

DT Journal

LA English

OSC.G 123 THERE ARE 123 CAPLUS RECORDS THAT CITE THIS RECORD (123 CITINGS)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 40 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Effects of hen age, Bio-Mos, and Flavomycin on poult susceptibility to oral Escherichia coli challenge

AB The effects of hen age, Escherichia coli, and dietary Bio-Mos and Flavomycin on poult performance from 1 to 21 d were studied. Day-of-hatch BUTA (BIG-6) male poults were gavaged orally (1 mL) with approx. 108 cfu/mL E. coli composed of 4 serotypes or sterile carrier broth. A mixture of the same E. coli cultures was added to the poults' water troughs to attain a concentration of approx. 106 cfu/mL on a weekly basis to ensure a continuous bacterial challenge. Within each E. coli split plot treatment group, poults from hens of different ages (33 and 58 wk of age) were fed diets containing Bio-Mos (1 g/kg feed), Flavomycin (2.2 mg active ingredient/kg feed), Bio-Mos plus Flavomycin, or a control diet, in a randomized complete block design. This experiment yielded 8 treatments per challenge group. At Weeks 1 and 3, 8 birds from each treatment from the E. coli challenged and unchallenged groups were randomly chosen for bacterial sampling of liver and intestinal tissue for coliforms, aerobic bacteria, and Lactobacillus spp. E. coli isolates from tissue samples were O serotyped. During E. coli challenge, dietary Bio-Mos and Flavomycin improved poult BW and BW gains ( $P \leq 0.05$ ). When poults were not challenged with E. coli, poults from old hens had improved BW and cumulative BW gains over poults from young hens ( $P \leq 0.05$ ). Cumulative 3-wk BW gains for unchallenged poults from young hens were improved by Bio-Mos and Flavomycin ( $P \leq 0.05$ ) alone and in combination when compared to the control diet. Two of the 4 E. coli serotypes administered were recovered. Several serotypes were recovered that were not administered. It may be concluded that dietary

Bio-Mos and Flavomycin can improve the overall performance of poult, especially when they are faced with an E. coli challenge.

AN 2001:896680 HCAPLUS <<LOGINID::20100319>>  
 DN 136:183093  
 TI Effects of hen age, Bio-Mos, and Flavomycin on poult susceptibility to oral Escherichia coli challenge  
 AU Fairchild, A. S.; Grimes, J. L.; Jones, F. T.; Wineland, M. J.; Edens, F. W.; Sefton, A. E.  
 CS Department of Poultry Science, North Carolina State University, Raleigh, NC, 27695, USA  
 SO Poultry Science (2001), 80(5), 562-571  
 CODEN: POSCAL; ISSN: 0032-5791  
 PB Poultry Science Association, Inc.  
 DT Journal  
 LA English  
 OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)  
 RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 41 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Use of mannoooligosaccharides from coffee mannan by intestinal bacteria  
 AB A mannoooligosaccharide mixture was obtained by hydrolysis of spent coffee grounds. Furthermore,  $\beta$ -1,4-D-mannobiose,  $\beta$ -1,4-D-mannotriose,  $\beta$ -1,4-D-mannotetraose, and  $\beta$ -1,4-D-mannopentose were fractionated by active carbon chromatog. from this mixture Each mannoooligosaccharide were investigated for its effect on the growth of established enterobacterial strains. Regardless of the mannoooligosaccharide mol. weight, all mannoooligosaccharides were used by Bifidobacterium adolescentis, Lactobacillus acidophilus, and Lactobacillus gasseri. On the other hand, bad bacteria such as Clostridium perfringens and Escherichia coli that produce mutagenic substances could not use mannoooligosaccharides. Therefore it could be expected that mannoooligosaccharides had a potential to promote the improvement of healthful human intestinal microflora as prebiotics.

AN 2001:846732 HCAPLUS <<LOGINID::20100319>>  
 DN 136:308984  
 TI Use of mannoooligosaccharides from coffee mannan by intestinal bacteria  
 AU Asano, Ichiro; Nakamura, Yasuyuki; Hoshino, Hiromitsu; Aoki, Keiji; Fujii, Shigeyoshi; Imura, Naoto; Iino, Hisakazu  
 CS Central Research Laboratories, Ajinomoto General Foods Inc., Suzuka, Mie, 513-8632, Japan  
 SO Nippon Nogei Kagaku Kaishi (2001), 75(10), 1077-1083  
 CODEN: NNKKAA; ISSN: 0002-1407  
 PB Nippon Nogei Kagakkai  
 DT Journal  
 LA Japanese  
 OSC.G 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

L11 ANSWER 42 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Hypoglycemic food containing carbohydrate-degrading enzymes, oligosaccharides, and dietary fibers  
 AB The foods contain carbohydrate-degrading enzymes produced by coculturing lactic acid bacteria with yeast, oligosaccharides which promote proliferation of intestinal bacteria, and dietary fibers. Ripened tomato, apple, cucumber, Japanese radish, and sugarcane(or sweet potato) were milled with H2O and the juice was treated with cellulase at 35° for 10 h. The juice was heated at

121° for 20 min, dried, and milled to give dietary fiber powder. The powder 30, oligosaccharides (fructooligosaccharide 20, isomaltooligosaccharides 20, galactooligosaccharides 20, palatinose 20, and coupling sugar 20%) 30, and carbohydrate-degrading enzymes were mixed to give hypoglycemic food. Hypoglycemic effect of the food was also tested using 25-55-old-year male and female volunteers.

AN 2001:785815 HCAPLUS <<LOGINID::20100319>>

DN 135:330756

TI Hypoglycemic food containing carbohydrate-degrading enzymes, oligosaccharides, and dietary fibers

IN Yanagida, Toji; Sano, Kunio

PA Energic K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2001299276	A	20011030	JP 2000-119870	20000420 <--
PRAI	JP 2000-119870		20000420	<--	
OSC.G	1	THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)			

L11 ANSWER 43 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Mannooligosaccharide for manufacturing probiotic bacteria growth promoter and anticariogenic food

AB The mannooligosaccharide is prepared from mannan obtained from coffee bean dreg and lees by hydrolysis with e.g. an acid. It contains 1-10 mannose residues as main ingredient, and glucose and galactose as minor ingredient. It is useful for manufacturing growth promoter for probiotic bacteria, and low-calorie and anticariogenic food.

AN 2001:406070 HCAPLUS <<LOGINID::20100319>>

DN 134:366094

TI Mannooligosaccharide for manufacturing probiotic bacteria growth promoter and anticariogenic food

IN Fujii, Shigeyoshi; Aoki, Takashi; Hoshino, Hiromitsu; Nakamura, Yasuyuki; Hamaguchi, Kengo; Asano, Ichiro; Imura, Naoto; Umemura, Masao

PA Ajinomoto General Foods, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2001149041	A	20010605	JP 2000-279883	20000914 <--
	JP 3553866	B2	20040811		
	JP 2004159659	A	20040610	JP 2003-416763	20031215 <--
PRAI	JP 1999-260185	A	19990914	<--	
	JP 2000-279883	A3	20000914	<--	
OSC.G	3	THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)			

L11 ANSWER 44 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Active Bifidobacterium capsules

AB The capsules are manufactured by mixing isomaltose oligomer 500-700, Bifidobacterium powder 10-100, and bifidobacteria growth enhancer fructose oligomer 200-490 kg, and filling the mixture in capsules. The addition of fructooligosaccharide enhances the shelf life of the Bifidobacterium. The capsules can be used in food, medicine, and health-care products.

AN 2001:192713 HCAPLUS <<LOGINID::20100319>>

DN 134:207005  
TI Active Bifidobacterium capsules  
IN Fan, Zhaowu; Luo, Chengyang; Wei, Baoliang; Cong, Lin; Zhang, Xiaoguang  
PA Nongken Institute of Dairy Products, Peop. Rep. China  
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp.  
CODEN: CNXXEV

DT Patent  
LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	CN 1266688	A	20000920	CN 1999-112738	19990310 <--
	CN 1151798	C	20040602		
PRAI	CN 1999-112738		19990310	<--	

L11 ANSWER 45 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Intestinal microflora is improved by the feeding of an oligosaccharide containing soft drink in rats

AB The intestinal microflora in rats fed an oligosaccharide containing soft drink was examined according to the method for the evaluation of the functionality of health food declared by the Department of Health, Taiwan. Thirty six Sprague-Dawley male rats, 6 wk old, were randomly assigned to one of the following three groups: Oligo, Mix and Control. They were all fed ad libitum the AlN-76 diet. In addition, they were fed resp. with 25 mL/day/rat of Oligo Drink which provided 0.52 g of isomaltooligosaccharides and 0.17 g of galactooligosaccharides, a control drink which was free of oligosaccharide and a "Mixed" drink which was made by mixing up equal amts. of Oligo" and the control drink. The cecal microflora were examined after 5.apprx.6 wk of feeding. Rats of the Oligo group showed significantly higher counts of Lactobacillus spp. (p <0.05), but significantly lower counts of Clostridium perfringens (p < 0.05), than those in the control group. The count for cecal Lactobacillus spp. of the Mix group were also significantly higher than those in the control group (p<0.05), but significantly lower than those in the Oligo group (p<0.05). The counts of cecal Clostridium perfringens in the Mix group was not significantly different from that in the control group (p > 0.05). The results indicated that the oligosaccharide-containing soft drink could improve the intestinal microflora in this rat model.

AN 2001:47168 HCAPLUS <<LOGINID::20100319>>

DN 134:221948

TI Intestinal microflora is improved by the feeding of an oligosaccharide containing soft drink in rats

AU Cheng, Ai-Ling; Pan, Tzu-Ming; Hung, Hui-Ping; Huang, Ching-Jang

CS Dep. Agricultural Chem., National Taiwan Univ., Taipei, Taiwan

SO Zhonghua Minguo Yingyang Xuehui Zazhi (2000), 25(4), 232-242

CODEN: ZMYZEG; ISSN: 1011-6958

PB Nutrition Society in Taipei

DT Journal

LA Chinese

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L11 ANSWER 46 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Bakery products comprising live lyophilised lactic bacteria

AB The present invention relates to a functional food/health food in the form of a baked good comprising a non-baked fat-based composition and a baked part, characterized in that the fat-based composition is essentially water-free and comprises live lyophilized lactic acid bacteria and in that the baked part comprises one or more non-digestible fiber-like substances. Also provided are intermediates thereof, a method for its production and its use.

AN 2000:420742 HCAPLUS <<LOGINID::20100319>>  
 DN 133:30020  
 TI Bakery products comprising live lyophilised lactic bacteria  
 IN La Droitte, Philippe; De Simone, Claudio  
 PA Novartis Nutrition A.-G., Switz.; Mendes S.r.l.; Actial Farmaceutica Lda.  
 SO Eur. Pat. Appl., 8 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1010372	A2	20000621	EP 1999-124758	19991213 <--
	EP 1010372	A3	20030903		
	EP 1010372	B1	20070905		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, AL, MK				
	IT 98MI2692	A1	20000615	IT 1998-MI2692	19981215 <--
	IT 1304170	B1	20010308		
	AU 721430	B1	20000706	AU 1999-64420	19991209 <--
	ZA 9907630	A	20000615	ZA 1999-7630	19991213 <--
	AT 372058	T	20070915	AT 1999-124758	19991213 <--
	PT 1010372	E	20071031	PT 1999-124758	19991213 <--
	ES 2293706	T3	20080316	ES 1999-124758	19991213 <--
	CA 2292325	C	20090901	CA 1999-2292325	19991213 <--
	JP 2000175615	A	20000627	JP 1999-353892	19991214 <--
	KR 2000048129	A	20000725	KR 1999-57460	19991214 <--
	US 20020044990	A1	20020418	US 1999-461602	19991215 <--
	US 6544568	B2	20030408		
	CN 1271936	C	20060830	CN 1999-127829	19991215 <--
	HK 1029898	A1	20070202	HK 2001-100922	20010209 <--
PRAI	IT 1998-MI2692	A	19981215	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 47 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Studies on the development of functional oligosaccharides using amylases and related enzymes

AB A review with 25 refs. This paper is composed of the following four research topics, with research carried out at the Osaka Municipal Tech. Research Institute. Cyclodextrin glycosyltransferases (CGTases) from *Bacillus megaterium*, *B. circulans*, *B. macerans* and *B. stearothermophilus* were purified and their catalytic properties were studied. CGTase catalyzed the conversion of  $\alpha$ -1,4-glucans such as starch and glycogen to cyclodextrin (CD) by intramol. transglycosylation. In the presence of a suitable acceptor such as glucose, CGTase catalyzed the intermol. transglycosylation, in which the non-reducing end glycosyl residues produced by splitting an  $\alpha$ -1,4-glucan were transferred to the acceptor. In the intramol. transglycosylation, the enzymes from *B. megaterium*, *B. circulans*, *B. macerans* and *B. stearothermophilus* produced  $\alpha$ -,  $\beta$ - and  $\gamma$ -CDs in ratios of 1.0:6.3:1.3, 1.0:6.4:1.4, 5.7:1.0:0.4 and 1.7:1.0:0.3, resp., on 1% soluble starch at the initial reaction. *B. stearothermophilus* CGTase showed the strongest activity in the intermol. transglycosylation. The effective acceptors of CGTases in the intermol. transglycosylation were D-glucose, D-xylose, 6-deoxy-D-glucose and L-sorbose, which had a pyranose structure with free equatorial hydroxyl groups at C2, C3 and C4. CGTases transferred glycosyl residues preferentially to the C4-hydroxyl group of D-glucose, D-xylose, and 6-deoxy-D-glucose with the exception of L-sorbose, where the preferred

group was the C3-hydroxyl group. The enzyme also catalyzed the hydrolysis of  $\alpha$ -1,4-glucans and CDs. The ratios of hydrolysis to total catalysis were 1.9, 2.0, 2.0 and 8.3 for the CGTases from *B. megaterium*, *B. circulans*, *B. macerans* and *B. stearothermophilus*, resp. Using the intermol. transglycosylation of CGTase, maltooligosyl-sucrose ("coupling sugar," com. name) is produced from the mixture of starch hydrolyzates and sucrose. The cariogenicity of the coupling sugar was studied by a group of the Department of Dental Research, Japanese National Institute of Health, and other universities, and the coupling sugar was proved to be an anticariogenic sweetener. It was the first example of a so-called "functional oligosaccharide" which had a physiol. property apart from the conventional functions of sweeteners. *Arthrobacter* sp. K-1  $\beta$ -fructofuranosidase ( $\beta$ -FFase), isolated from soil, had very strong transfer activity and broad acceptor specificity. When the  $\beta$ -FFase was incubated with sucrose in the presence of xylose, isomaltose and lactose, the enzyme transferred the fructosyl residue only to the C1 hydroxyl group of the acceptors and efficiently produced fructosylxyloside (XF), isomaltosylfructoside (IMF) and lactosylfructoside (LacF), resp. XF competitively inhibited the degradation activity of sucrose by glucosyltransferase (GTase) from *Streptococcus mutans* as an analog to sucrose, and IMF acted as an alternative acceptor for the glucosyl transfer reaction of GTase to lessen the formation of insol. glucan. These saccharides had anticariogenic properties. LacF was nondigestive, but selectively utilized by bifidobacteria in the human intestinal bacteria flora, followed by the improvement of constipation and blood lipid levels of hyperlipemia patients and suppression of putrefactive metabolites such as ammonia, phenol and indole. Stevioside, a sweet steviol glycoside isolated from the leaves of *Stevia rebaudiana* Bertonii, is about 140-fold as sweet as sucrose, but has a slightly bitter taste and aftertaste. To improve the quality of taste, various stevioside derivs. such as glycosyl-stevioside (G-Ste), fructosyl-stevioside (F-Ste) and galactosyl-stevioside were synthesized with the transfer reaction of CGTase,  $\beta$ -FFase and  $\beta$ -galactosidase. The quality of taste of F-Ste was greatly improved, and much superior to that of rebaudioside A, which was the best sweet component of natural steviol sweeteners, and comparable to that of aspartame. To develop new applications different from CDs and branched CDs which are homogeneous oligosaccharides composed of only glucose, various heterobranched CDs were synthesized,  $\beta$ -Galactosidases synthesized galactosyl transfer products to branched CDs, but not CDs. Coffee bean  $\alpha$ -galactosidase synthesized galactosyl transfer products to both CDs and branched CDs. Jack bean  $\alpha$ -mannosidase produced mannosyl-CDs by reverse reaction with mannose and CDs. Jack bean N-acetyl-hexosaminidase produced N-acetylglucosaminyl-CDs by reverse reaction with N-acetylglucosamine and CDs.

AN 2000:375208 HCAPLUS <<LOGINID::20100319>>

DN 133:349165

TI Studies on the development of functional oligosaccharides using amylases and related enzymes

AU Kitahata, Sumio

CS Osaka Municipal Tech. Res. Inst., 1-6-50, Morinomiya, Joto-ku, Osaka, 536-8553, Japan

SO Journal of Applied Glycoscience (2000), 47(1), 87-97  
CODEN: JAGLFX; ISSN: 1344-7882

PB Japanese Society of Applied Glycoscience

DT Journal; General Review

LA Japanese

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L11 ANSWER 48 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Enzyme composition capable of forming an oligosaccharide in vivo, and

therapeutic use

AB Oligosaccharides having physiol. activities are synthesized in vivo in order to e.g. improve intestinal bacterial flora. An enzyme composition comprising an enzyme capable of forming an oligosaccharide having a physiol. activity in the living body and a method for forming an oligosaccharide having a physiol. activity in the living body are provided. The enzyme composition of the invention is useful in the prevention of adiposis and for suppressing blood sugar increases in diabetics.

AN 2000:12624 HCAPLUS <<LOGINID::20100319>>

DN 132:59177

TI Enzyme composition capable of forming an oligosaccharide in vivo, and therapeutic use

IN Kimura, Shigeki; Ogawa, Tomonari; Kariya, Kinya; Yanase, Hideshi

PA Amano Pharmaceutical Co., Ltd., Japan

SO Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 968719	A2	20000105	EP 1999-112794	19990702 <--
	EP 968719	A3	20030129		
	EP 968719	B1	20041229		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6042823	A	20000328	US 1999-340203	19990628 <--
	JP 2000325045	A	20001128	JP 1999-186101	19990630 <--
	JP 4039652	B2	20080130		
	TW 544313	B	20030801	TW 1999-88113712	19990811 <--
PRAI	JP 1998-204293	A	19980702	<--	
	JP 1999-71122	A	19990317	<--	
	JP 1999-186101	A	19990630	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 49 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Effects of  $\beta$ -amylase and transglucosidase on the qualities of red ginseng extract

AB In order to evaluate the qualities of red ginseng extract and decrease precipitate

formation in ginseng drink, red ginseng extract was hydrolyzed with  $\beta$ -amylase and transglucosidase. Isomaltose 5.2 % was produced as isomaltooligosaccharides and glucose content was increased in the enzyme treated ginseng extract Contents of ginsenoside R-b1 and R-b2 were decreased, whereas ginsenoside-Rd was increased by the enzyme treatments. The growth of 3 strains of Bifidus spp. and 4 strains of Lactobacillus spp., beneficial intestinal bacteria, were enhanced by adding of the enzymically hydrolyzed ginseng extract Sweetness and sourness were increased, however, bitterness and astringency were decreased in the hydrolyzed ginseng extract The formation of ppts. in hydrolyzed red ginseng extract of pH 3.0.apprx.4.5 were significantly decreased in the storage condition of 40° for 1 mo compared to that of control.

AN 1999:492639 HCAPLUS <<LOGINID::20100319>>

DN 131:355962

TI Effects of  $\beta$ -amylase and transglucosidase on the qualities of red ginseng extract

AU Kim, Na-Mi; Lee, Jong-Soo; Lee, Byung H.

CS Korean Ginseng and Tobacco Research Institute, Taejon, 305-345, S. Korea  
 SO Journal of Ginseng Research (1999), 23(2), 93-98  
 CODEN: JGREF7; ISSN: 1226-8453  
 PB Korean Society of Ginseng  
 DT Journal  
 LA Korean  
 OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L11 ANSWER 50 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Probiotic-containing paste for use with bakery products  
 AB A probiotic-containing paste may be used as a filling, coating or other component of food products. Suitable food applications include bakery products, especially a rye bread, rusk, or biscuit. Thus, a cheese-flavored filling containing Streptococcus thermophilus is used with a thin rye-based crispbread.  
 AN 1999:166496 HCAPLUS <<LOGINID::20100319>>  
 DN 130:209096  
 TI Probiotic-containing paste for use with bakery products  
 IN Haarasilta, Sampsa; Reinikainen, Tapani  
 PA Cultor Corporation, Finland  
 SO PCT Int. Appl., 19 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9909839	A1	19990304	WO 1998-FI646	19980821 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FI 9703475	A	19990223	FI 1997-3475	19970822 <--
	FI 108512	B1	20020215		
	AU 9888650	A	19990316	AU 1998-88650	19980821 <--
PRAI	FI 1997-3475	A	19970822 <--		
	WO 1998-FI646	W	19980821 <--		
OSC.G	8	THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)			
RE.CNT	2	THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD			
		ALL CITATIONS AVAILABLE IN THE RE FORMAT			

L11 ANSWER 51 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Possibility of an effect of nondigestible carbohydrates on human intestinal flora.  
 AB A review with 116 refs. discussing prebiotics, probiotics, and synbiotics with respect to roughage in the diet. Fructooligosaccharides, lactose derivs., galacto-, malto-, isomalto-, xylo-, and gluco-oligosaccharides are discussed.  
 AN 1998:468620 HCAPLUS <<LOGINID::20100319>>  
 DN 129:229989  
 OREF 129:46793a, 46796a  
 TI Possibility of an effect of nondigestible carbohydrates on human intestinal flora.  
 AU Karppinen, Sirpa; Aura, Anna-Marja; Forssell, pirkko; Ooutanen, Kaisa  
 CS Vtt Bio, Finland  
 SO VTT Tiedotteita (1998), 1896, 1-57  
 CODEN: VTIEEE; ISSN: 1235-0605

DT Report; General Review  
LA Finnish

L11 ANSWER 52 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Frozen breads containing lactic acid bacteria  
AB Title breads contain sporogenous lactic acid bacteria for  
improvement of intestinal environment. Bread containing Bacillus  
coagulans was compressed, stored in a freezer, and heated with a microwave  
oven. The resulting bread reduced fecal pH and amine and ammonia content.  
AN 1998:210980 HCAPLUS <<LOGINID::20100319>>  
DN 128:229668  
OREF 128:45489a,45492a  
TI Frozen breads containing lactic acid bacteria  
IN Ara, Katsutoshi; Takigawa, Hirofumi; Mori, Hiroshi; Otsuji, Ichiya  
PA Kao Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10084845	A	19980407	JP 1996-242856	19960913 <--
	JP 3699214	B2	20050928		
PRAI	JP 1996-242856		19960913	<--	

L11 ANSWER 53 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Enhancement of microbial colonization of the gastrointestinal tract  
AB Probiotic compns. comprise one or more probiotic  
microorganisms, a carrier which will function to transport the one or more  
probiotic microorganisms to the large bowel or other regions of  
the gastrointestinal tract of an animal, the carrier comprising a modified  
or unmodified resistant starch or mixts. thereof, which carrier acts as a  
growth or maintenance medium for microorganisms in the large bowel or  
other regions of the gastrointestinal tract, and an oligosaccharide. PH  
values in cultures demonstrated synergistic effects of oligosaccharide  
(Hi-maize starch or raftilose) in probiotic compns. containing,  
e.g., Bifidobacteria.  
AN 1997:640554 HCAPLUS <<LOGINID::20100319>>  
DN 127:272805  
OREF 127:53117a,53120a  
TI Enhancement of microbial colonization of the gastrointestinal tract  
IN Brown, Ian Lewis; Conway, Patricia Lynne; Topping, David Lloyd; Wang, Xin  
PA University of New South Wales, Australia; Burns Philp & Co., Ltd.; Burns  
Philp Research & Development Pty. Ltd.; Commonwealth Scientific and  
Industrial Research Organisation; Arnott's Biscuits Ltd.; Gist-Brocades  
Australia Pty. Ltd.; Goodman Fielder Ingredients Ltd.; Brown, Ian Lewis;  
Conway, Patricia Lynne; et al.  
SO PCT Int. Appl., 18 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9734615	A1	19970925	WO 1997-AU176	19970320 <--
	W: AU, CA, JP, KR, NZ, SG, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2249361	A1	19970925	CA 1997-2249361	19970320 <--
	CA 2249361	C	20081118		
	AU 9720182	A	19971010	AU 1997-20182	19970320 <--

AU 705095	B2	19990513		
EP 888118	A1	19990107	EP 1997-908078	19970320 <--
EP 888118	B1	20041103		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
NZ 331950	A	20000228	NZ 1997-331950	19970320 <--
JP 2000506870	T	20000606	JP 1997-532982	19970320 <--
JP 4416841	B2	20100217		
AT 281174	T	20041115	AT 1997-908078	19970320 <--
ES 2234002	T3	20050616	ES 1997-908078	19970320 <--
US 6221350	B1	20010424	US 1999-155117	19990412 <--
JP 2009137962	A	20090625	JP 2008-309759	20081204 <--
PRAI AU 1996-8813	A	19960320	<--	
JP 1997-532982	A3	19970320	<--	
WO 1997-AU176	W	19970320	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (19 CITINGS)  
 RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 54 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Production, health benefits and applications of galacto-oligosaccharides  
 AB A review with 18 refs. It is well known that bifidobacteria are useful inhabitants of the human intestine and that they are colonized there. These bacteria produce lactic acid, acetic acid and formic acid to lower the pH in the intestinal tract and thereby tend to prevent the growth of unfavorable organisms, such as Escherichia coli and Clostridium perfringens. It was reported that some oligosaccharides, such as galacto-oligosaccharides, fructo-oligosaccharides, isomalto-oligosaccharides, lactosucrose, have a growth promoting activity for bifidobacterium. This chapter describes (1) the production processes for oligosaccharides, (2) the properties of oligosaccharides, (3) their physiol. features, including the bifidobacteria growth promoting effects and (4) applications in foods.

AN 1997:621412 HCAPLUS <<LOGINID::20100319>>  
 DN 127:261819  
 OREF 127:51145a,51148a  
 TI Production, health benefits and applications of galacto-oligosaccharides  
 AU Dombo, Munehiko; Yamamoto, Hideki; Nakajima, Hiroshi  
 CS Unitika Ltd., Kyoto, Japan  
 SO Frontiers in Foods and Food Ingredients (1997), 2(New Technologies for Healthy Foods & Nutraceuticals), 143-156  
 CODEN: FFFIE9; ISSN: 1072-429X  
 PB ATL Press  
 DT Journal; General Review  
 LA English  
 OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)  
 RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 55 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Synthesis by an  $\alpha$ -glucosidase of glycosyl-trehaloses with an isomaltosyl residue  
 AB Glycosyl trehaloses with an isomaltosyl residue were synthesized by  $\alpha$ -glucosidase from Aspergillus niger by using maltotetraose as a glucosyl donor and trehalose as the acceptor. The 1 trisaccharide and 2 tetrasaccharides formed were isolated by successive column chromatog. The results of enzymic digestion, methylation anal., and <sup>13</sup>C-NMR studies indicated that these oligosaccharides were  $\alpha$ - isomaltosyl  $\alpha$ -glucoside,  $\alpha$ - isomaltotriosyl  $\alpha$ -glucoside, and  $\alpha$ - isomaltosyl  $\alpha$ - isomaltoside. These

oligosaccharides were not fermented to an acid by Streptococcus mutans and they effectively inhibited water-insol. glucan synthesis from sucrose by glucosyltransferase. In an in vitro utilization test with human intestinal bacteria, these oligosaccharides were predominantly utilized by Bifidobacteria.

AN 1997:308881 HCAPLUS <<LOGINID::20100319>>

DN 127:16515

OREF 127:3351a,3354a

TI Synthesis by an  $\alpha$ -glucosidase of glycosyl-trehaloses with an isomaltosyl residue

AU Kurimoto, Masashi; Nishimoto, Tomoyuki; Nakada, Tetsuya; Chaen, Hiroto; Fukuda, Shigeharu; Tsujisaka, Yoshio

CS Hayashibara Biochemical Laboratories, Inc., Okayama, 700, Japan

SO Bioscience, Biotechnology, and Biochemistry (1997), 61(4), 699-703

CODEN: BBBIEJ; ISSN: 0916-8451

PB Japan Society for Bioscience, Biotechnology, and Agrochemistry

DT Journal

LA English

OSC.G 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 56 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Effects of biosynthetic polysaccharides and oligosaccharides on intestinal bacteria

AB The growth and pH changes of intestinal bacteria utilizing indigestible biosynthetic polysaccharides (pine fiber, polydextrose) or oligosaccharides (fructooligosaccharides, isomaltooligosaccharides, soybean oligosaccharides) were investigated. Six intestinal bacteria strains were cultured anaerobically at 37° in a medium which contained different indigestible polysaccharides or oligosaccharides. The changes of optical d. at 560 nm and pH values in the medium were examined Bifidobacterium bifidum and Bifidobacterium longum utilized soybean oligosaccharides, isomaltooligosaccharides, and fructooligosaccharides and produced more acids than on the other indigestible carbohydrates. Lactobacillus acidophilus, Enterococcus faecalis, and Escherichia coli grew well on soybean oligosaccharides, isomaltooligosaccharides, or fructooligosaccharides and produced significant amts. of acids, but grew poorly in pine fiber and polydextrose media and changes of pH were not observed Bacteroides fragilis grew very well in soybean oligosaccharides and isomaltooligosaccharides and produced much acid. B. fragilis utilized pine fiber and polydextrose poorly.

AN 1995:281446 HCAPLUS <<LOGINID::20100319>>

DN 122:51001

OREF 122:9757a,9760a

TI Effects of biosynthetic polysaccharides and oligosaccharides on intestinal bacteria

AU Yang, Yaching; Tsiang, Fonglin; Chiu, Chihwei P.; Tsai, Chingmin E.

CS Graduate Institute of Nutrition and Food Sciences, Fugen University, Taipei, Taiwan

SO Shipin Kexue (Taipei) (1993), 20(2), 187-97

CODEN: SPKHE6; ISSN: 0253-8997

PB Chinese Institute of Food Science

DT Journal

LA Chinese

L11 ANSWER 57 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Effects of biosynthetic oligo- and polysaccharides on the growth of intestinal bacteria

AB This study investigated the effects of some com. products of biosynthetic indigestible saccharides on the growth and acid production of 5 intestinal bacteria. *Bifidobacterium longum*, *Enterococcus faecalis*, *Klebsiella pneumoniae*, *Escherichia coli* and *Bacteroides fragilis* were mixed and cultured anaerobically at 37° for 48 h in test media which contained 0.5% fructooligosaccharide-1, fructooligosaccharide-2, isomaltooligosaccharide, galactooligosaccharide, polydextrose or Pine fiber. The pH values and total bacterial count of media after anaerobic culture at 37° for 48 h were examined. The results showed that 0.5% glucose, isomaltooligosaccharide and fructooligosaccharide-3 gave the lowest pH value, but still higher than pH 4.5. Polydextrose and Pine fiber gave the highest pH value, about pH 6.5. *K. pneumoniae* and *E. coli* grew well in all test media and PY broth (basal medium). The bacterial counts of *E. faecalis* in galactooligosaccharide or 0.25% glucose were less than in other test media. *B. longum* grew better in fructooligosaccharide-1 or galactooligosaccharide. *B. fragilis* significantly decreased in galactooligosaccharide medium; however, it did not change in other test media or PY broth.

AN 1995:184720 HCAPLUS <<LOGINID::20100319>>

DN 122:27415

OREF 122:5337a,5340a

TI Effects of biosynthetic oligo- and polysaccharides on the growth of intestinal bacteria

AU Liu, Shoufen; Ling, Yinshey; Tsai, Chingmin E.

CS Graduate Institute of Nutrition and Food Sciences, Fujen University, Taipei, Taiwan

SO Shipin Kexue (Taipei, Taiwan) (1994), 21(2), 134-43  
CODEN: SPKHE6; ISSN: 0253-8997

DT Journal

LA Chinese

L11 ANSWER 58 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Vinegar containing branched oligosaccharides

AB Vinegar, which improves intestinal flora, contains alc.-fermentation and AcOH-fermentation products of branched oligosaccharide-containing sugars. Vinegar (having sugar composition of glucose 0, maltose 1.1, isomaltose 4.1, maltotriose 0.9, panose 3.0, isomaltotriose 2.3, and other branched oligosaccharides 20.7 g/100 mL) was given orally to men (at 30 mL/day) for 2 wk to show 34.9% *Bifidobacterium* ratio to total intestinal bacteria, vs. 21.8%, before the treatment.

AN 1994:481500 HCAPLUS <<LOGINID::20100319>>

DN 121:81500

OREF 121:14635a,14638a

TI Vinegar containing branched oligosaccharides

IN Kimura, Takanao; Hirooka, Shoichi

PA Gunei Kagaku Kogyo Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 06090733	A	19940405	JP 1992-272330	19920914 <--
PRAI	JP 1992-272330		19920914	<--	
OSC.G	1	THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)			

L11 ANSWER 59 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Structure of dextran synthesized by dextrin dextranase from *Acetobacter capsulatus* ATCC 11894

AB The structure of dextran synthesized from maltotetraose by dextrin dextranase (EC 2.4.1.2) from *Acetobacter capsulatus* ATCC 11894 was analyzed. When the *Acetobacter* dextran (AD) was acetolyzed, glucose and maltose were produced. AD was allowed to react with  $\alpha$ -amylases. AD was digested by bacterial saccharifying  $\alpha$ -amylase and bacterial liquefying  $\alpha$ -amylase, and glucose, maltose, and maltotriose were produced. The structure of the fraction obtained from dextranase-digested AD by activated charcoal chromatog., which did not contain glucose, isomaltose, and isomaltotriose, was investigated by methylation anal., and the ratio of 2,3,4,6-tetra-O-methyl-:2,3,4-tri-O-methyl-:2,3,6-tri-O-methyl-:2,3-di-O-methyl-alditol acetate was estimated as 22.9:46.8:15.5:14.8. This result indicated the existence of  $\alpha$ -1,4 branches and that of  $\alpha$ -1,4 linkages in  $\alpha$ -1,6 glucosyl linear chains. Native AD was calculated to be constructed with 6.23 branching points and 6.53  $\alpha$ -1,4 linked glucosyl residues per 100 glucosyl units. Though AD was digested slightly by rat intestinal acetone powder, high mol. weight polymers remained. Therefore AD could be used as a dietary fiber.

AN 1994:3374 HCAPLUS <<LOGINID::20100319>>

DN 120:3374

OREF 120:783a,786a

TI Structure of dextran synthesized by dextrin dextranase from *Acetobacter capsulatus* ATCC 11894

AU Yamamoto, Kuzuya; Yoshikawa, Kenji; Okada, Shigetaka

CS Biochem. Res. Lab., Ezaki Glico Co., Ltd., Osaka, 555, Japan

SO Bioscience, Biotechnology, and Biochemistry (1993), 57(9), 1450-3

CODEN: BBBIEJ; ISSN: 0916-8451

DT Journal

LA English

OSC.G 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L11 ANSWER 60 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Substrates and lactic acid bacteria

AB A review with 31 refs. For the multiplication of bifidobacteria in the human intestine, dietary sugar sources are the main factors that one can influence. For example, the administration of nondigestible oligosaccharides, such as raffinose, fructooligosaccharides, galactosyllactose, isomaltooligosaccharides, or transgalactosyl oligosaccharide, causes an increase in the number of endogenous bifidobacteria and some changes in lactic acid bacteria. However, the relationship between the changes and the dose of the oligosaccharides is not clear. In order to increase the number of lactic acid bacteria, and especially bifidobacteria, in the intestinal tract, suitable slowly absorbable substrates are needed in the diet. The production of lactic acid and other organic acids by lactic acid bacteria as well as bifidobacteria is dependent on metabolism of carbohydrate substrates which have not been absorbed or metabolized in the upper digestive tract before reaching the large intestine or the colon.

AN 1993:555629 HCAPLUS <<LOGINID::20100319>>

DN 119:155629

OREF 119:27769a,27772a

TI Substrates and lactic acid bacteria

AU Salminen, Seppo; Ramos, Patricia; Fonden, Rangne

CS Valio Ltd., Helsinki, Finland

SO Food Science and Technology (New York, NY, United States) (1993 ), 58(Lactic Acid Bacteria), 295-306

CODEN: FSTEEM; ISSN: 0891-8961

DT Journal; General Review

LA English

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L11 ANSWER 61 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI In vitro digestion and utilization of theanderoose by various intestinal bacteria

AB The hydrolysis of theanderoose, 6G- $\alpha$ -D-glucosylsucrose, was examined by an in vitro digestion method. No hydrolysis was observed using salivary and pancreatic amylases. Theanderoose was partially (3.7%) hydrolyzed by artificial gastric juice. Enzymes of the small intestine hydrolyzed 58.2% of the theanderoose, producing fructose, glucose, and sucrose. Apparently, theanderoose is partially hydrolyzed between the mouth and small intestine, and the residue enters the large intestine. The utilization of theanderoose by various intestinal bacteria in vitro was investigated. Theanderoose was utilized by all Bifidobacterium species except for B. bifidum, but was not utilized by Clostridium and Escherichia. Furthermore the utilization of theanderoose by Bifidobacterium was higher than fructooligosaccharide (FOS), and the selectivity of Bifidobacterium was higher for theanderoose than for isomaltose and FOS. These results suggest that intake of theanderoose selectively promotes the growth of intestinal bifidobacteria.

AN 1993:190262 HCAPLUS <<LOGINID::20100319>>

DN 118:190262

OREF 118:32663a,32666a

TI In vitro digestion and utilization of theanderoose by various intestinal bacteria

AU Shimokawa, Hisatoshi; Takeda, Yasuhiko; Wada, Kouichi; Shimizu, Toshio

CS Foods Div., Asahi Chem. Ind. Co., Ltd., Fuji, 416, Japan

SO Nippon Eiyo, Shokuryo Gakkaishi (1993), 46(1), 69-76

CODEN: NESGDC; ISSN: 0287-3516

DT Journal

LA Japanese

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L11 ANSWER 62 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Intestinal function improvers containing Yucca and oligosaccharides

AB Intestinal function improvers contain Yucca and  $\geq 1$  oligosaccharides chosen from isomalto-, galacto-, and fructo-oligosaccharides. Yucca-isomaltooligosaccharide mixture (1:1 weight ratio) at 2 g/L synergistically enhanced growth of Lactobacillus brevis and Bifidobacterium breve.

AN 1992:172748 HCAPLUS <<LOGINID::20100319>>

DN 116:172748

OREF 116:29219a,29222a

TI Intestinal function improvers containing Yucca and oligosaccharides

IN Hasegawa, Masayasu; Kawada, Shigetoshi

PA Nippon Synthetic Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 04016163	A	19920121	JP 1990-116637	19900502 <--
PRAI	JP 1990-116637		19900502	<--	

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L11 ANSWER 63 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI An oligosaccharide product - containing composition and its use as a selective growth nutrient for enteric Bifidobacterium

AB The reduction products of branched oligosaccharides which possess  $\alpha$ -1,6 glucose linkages are used to prepared a composition for selectively promoting the

growth of enteric Bifidobacterium. A composition containing reduced branched oligosaccharide 40% [which was composed of isomaltose 25, trisaccharide (panose, isomaltotriose, etc) 10, and tetrasaccharide (or larger than tetrasaccharide) 5%] and other sugars (predominantly glucose and mannose) 60% demonstrated its selectivity on promoting the growth of B. breve but not E. coli or other undesirable bacteria (data given).

AN 1988:147082 HCAPLUS <<LOGINID::20100319>>

DN 108:147082

OREF 108:24079a

TI An oligosaccharide product - containing composition and its use as a selective growth nutrient for enteric Bifidobacterium

IN Kawamoto, Takanobu; Oda, Tsunero; Takaku, Hajime

PA Showa Sangyo Co., Ltd., Japan; Nikken Chemicals Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62145020	A	19870629	JP 1985-282730	19851218 <--
	JP 07095943	B	19951018		
PRAI	JP 1985-282730		19851218	<--	

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L11 ANSWER 64 OF 64 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Bacterial lectins, cell-cell recognition and infectious disease

AB A review with 56 refs. Numerous bacterial strains produce surface lectins, commonly in the form of fimbria that are filamentous assemblies of protein subunits. Among the best characterized of these are the type 1 (mannose-specific) fimbrial lectins of Escherichia coli that consist almost exclusively of one class of subunit with a mol. mass of 17 kDa. They possess an extended combining site corresponding to a trisaccharide and preferentially bind carbohydrate units of oligomannose or hybrid type. Type 1 fimbria also possess a hydrophobic region close to the carbohydrate-binding site, since aromatic  $\alpha$ -mannosides inhibit strongly (up to 1000 times more than Me  $\alpha$ -mannoside) the agglutination of yeasts by the bacteria and adherence of the latter to pig ileal epithelial cells. The combining sites of type 1 fimbria of the salmonellae and of other enteric bacteria are different from those of E. coli in that they are smaller and do not possess a hydrophobic region. The various bacterial surface lectins appear to function primarily in the initiation of infection by mediating bacterial adherence to epithelial cells (e.g., in the urinary and gastrointestinal tracts). The mannose-specific lectins also act as recognition mols. in lectinophagocytosis (i.e., phagocytosis of the bacteria in the absence of opsonins) by mouse, rat, and human peritoneal macrophages, and human polymorphonuclear leukocytes. Affinity chromatog. of membrane lysates from human polymorphonuclear leukocytes on immobilized type 1 fimbrial lectin, using Me  $\alpha$ -mannoside as eluent, showed that glycoproteins with apparent mol. masses of 70-80, 100, and 150 kDa acts as receptors for the bacteria. Inhibition expts. with monoclonal antibodies suggest that the glycoprotein bands of 100 and 150 kDa may be identical with the  $\alpha$  and  $\beta$  subunits of leukocyte complement

receptors and adhesion glycoproteins involved in complement-mediated opsonophagocytosis. The systems described serve as a fine illustration for the biol. role of lectin-carbohydrate interactions.

AN 1987:473877 HCAPLUS <<LOGINID::20100319>>

DN 107:73877

OREF 107:12113a,12116a

TI Bacterial lectins, cell-cell recognition and infectious disease

AU Sharon, Nathan

CS Dep. Biophys., Weizmann Inst. Sci., Rehovot, 76100, Israel

SO FEBS Letters (1987), 217(2), 145-57

CODEN: FEBLAL; ISSN: 0014-5793

DT Journal; General Review

LA English

OSC.G 94 THERE ARE 94 CAPLUS RECORDS THAT CITE THIS RECORD (94 CITINGS)

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-53.55	-55.25

=> guar or galactomannan or (manno-oligosaccharide) or mannooligosaccharide or oligomannose or isomalto? or (iso-malto?)

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The previous command name entered was not recognized by the system.

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	208.24	227.77
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-53.55	-55.25

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=> exp proanthocyanidin/cn

E1	1	PROANSAMYCIN X/CN
E2	1	PROANTHANOL/CN
E3	0 -->	PROANTHOCYANIDIN/CN
E4	1	PROANTHOCYANIDIN A/CN
E5	1	PROANTHOCYANIDIN A1/CN
E6	1	PROANTHOCYANIDIN A2/CN
E7	1	PROANTHOCYANIDIN A2 4A-BENZYLTHIOETHER/CN
E8	1	PROANTHOCYANIDIN A4/CN
E9	1	PROANTHOCYANIDIN A5'/CN
E10	1	PROANTHOCYANIDIN A6/CN
E11	1	PROANTHOCYANIDIN A7/CN
E12	1	PROANTHOCYANIDIN B/CN

=> exp proanthocyanidin A2/cn

E1	1	PROANTHOCYANIDIN A/CN
E2	1	PROANTHOCYANIDIN A1/CN
E3	1 -->	PROANTHOCYANIDIN A2/CN
E4	1	PROANTHOCYANIDIN A2 4A-BENZYLTHIOETHER/CN
E5	1	PROANTHOCYANIDIN A4/CN
E6	1	PROANTHOCYANIDIN A5'/CN
E7	1	PROANTHOCYANIDIN A6/CN
E8	1	PROANTHOCYANIDIN A7/CN
E9	1	PROANTHOCYANIDIN B/CN
E10	1	PROANTHOCYANIDIN B1/CN
E11	1	PROANTHOCYANIDIN B2/CN
E12	1	PROANTHOCYANIDIN B2 3,3'-O-GALLATE/CN

=> s E1-E12

	1	"PROANTHOCYANIDIN A"/CN
	1	"PROANTHOCYANIDIN A1"/CN
	1	"PROANTHOCYANIDIN A2"/CN
	1	"PROANTHOCYANIDIN A2 4A-BENZYLTHIOETHER"/CN
	1	"PROANTHOCYANIDIN A4"/CN
	1	"PROANTHOCYANIDIN A5'"/CN
	1	"PROANTHOCYANIDIN A6"/CN
	1	"PROANTHOCYANIDIN A7"/CN
	1	"PROANTHOCYANIDIN B"/CN
	1	"PROANTHOCYANIDIN B1"/CN
	1	"PROANTHOCYANIDIN B2"/CN
	1	"PROANTHOCYANIDIN B2 3,3'-O-GALLATE"/CN
L12	12	("PROANTHOCYANIDIN A"/CN OR "PROANTHOCYANIDIN A1"/CN OR "PROANTHOCYANIDIN A2"/CN OR "PROANTHOCYANIDIN A2 4A-BENZYLTHIOETHER"/CN OR "PROANTHOCYANIDIN A4"/CN OR "PROANTHOCYANIDIN A5'"/CN

OR "PROANTHOCYANIDIN A6"/CN OR "PROANTHOCYANIDIN A7"/CN OR "PROANTHOCYANIDIN B"/CN OR "PROANTHOCYANIDIN B1"/CN OR "PROANTHOCYANIDIN B2"/CN OR "PROANTHOCYANIDIN B2 3,3'-O-GALLATE"/CN)

=> exp proanthocyanidin B3/cn

E1	1	PROANTHOCYANIDIN B2/CN
E2	1	PROANTHOCYANIDIN B2 3,3'-O-GALLATE/CN
E3	1	--> PROANTHOCYANIDIN B3/CN
E4	1	PROANTHOCYANIDIN B4/CN
E5	1	PROANTHOCYANIDIN B5/CN
E6	1	PROANTHOCYANIDIN B6/CN
E7	1	PROANTHOCYANIDIN B7/CN
E8	1	PROANTHOCYANIDIN BP 1/CN
E9	1	PROANTHOCYANIDIN C/CN
E10	1	PROANTHOCYANIDIN C1/CN
E11	1	PROANTHOCYANIDIN CS 3/CN
E12	1	PROANTHOCYANIDIN CS 4/CN

=> s E3-E12

	1	"PROANTHOCYANIDIN B3"/CN
	1	"PROANTHOCYANIDIN B4"/CN
	1	"PROANTHOCYANIDIN B5"/CN
	1	"PROANTHOCYANIDIN B6"/CN
	1	"PROANTHOCYANIDIN B7"/CN
	1	"PROANTHOCYANIDIN BP 1"/CN
	1	"PROANTHOCYANIDIN C"/CN
	1	"PROANTHOCYANIDIN C1"/CN
	1	"PROANTHOCYANIDIN CS 3"/CN
	1	"PROANTHOCYANIDIN CS 4"/CN
L13	10	("PROANTHOCYANIDIN B3"/CN OR "PROANTHOCYANIDIN B4"/CN OR "PROANTHOCYANIDIN B5"/CN OR "PROANTHOCYANIDIN B6"/CN OR "PROANTHOCYANIDIN B7"/CN OR "PROANTHOCYANIDIN BP 1"/CN OR "PROANTHOCYANIDIN C"/CN OR "PROANTHOCYANIDIN C1"/CN OR "PROANTHOCYANIDIN CS 3"/CN OR "PROANTHOCYANIDIN CS 4"/CN)

=> exp proanthocyanidin CT/cn

E1	1	PROANTHOCYANIDIN CS1/CN
E2	1	PROANTHOCYANIDIN CS2/CN
E3	0	--> PROANTHOCYANIDIN CT/CN
E4	1	PROANTHOCYANIDIN DIMER MONOGALLATE/CN
E5	1	PROANTHOCYANIDIN P-1/CN
E6	1	PROANTHOCYANIDIN PRECURSOR-SPECIFIC UDP-GLYCOSYLTRANSFERASE (MEDICAGO TRUNCATULA)/CN
E7	1	PROANTHOCYANIDIN PZ5/CN
E8	1	PROANTHOCYANIDIN RP 1/CN
E9	1	PROANTHOCYANIDIN RP 2/CN
E10	1	PROANTHOCYANIDIN RP 3/CN
E11	1	PROANTHOCYANIDIN RP 4/CN
E12	1	PROANTHOCYANIDIN T1/CN

=> s E4-E12

	1	"PROANTHOCYANIDIN DIMER MONOGALLATE"/CN
	1	"PROANTHOCYANIDIN P-1"/CN
	1	"PROANTHOCYANIDIN PRECURSOR-SPECIFIC UDP-GLYCOSYLTRANSFERASE (MEDICAGO TRUNCATULA)"/CN
	1	"PROANTHOCYANIDIN PZ5"/CN
	1	"PROANTHOCYANIDIN RP 1"/CN
	1	"PROANTHOCYANIDIN RP 2"/CN
	1	"PROANTHOCYANIDIN RP 3"/CN
	1	"PROANTHOCYANIDIN RP 4"/CN
	1	"PROANTHOCYANIDIN T1"/CN

L14 9 ("PROANTHOCYANIDIN DIMER MONOGALLATE"/CN OR "PROANTHOCYANIDIN P-1"/CN OR "PROANTHOCYANIDIN PRECURSOR-SPECIFIC UDP-GLYCOSYLTRANSFERASE (MEDICAGO TRUNCATULA)"/CN OR "PROANTHOCYANIDIN PZ5"/CN OR "PROANTHOCYANIDIN RP 1"/CN OR "PROANTHOCYANIDIN RP 2"/CN OR "PROANTHOCYANIDIN RP 3"/CN OR "PROANTHOCYANIDIN RP 4"/CN OR "PROANTHOCYANIDIN T1"/CN)

=> exp proanthocyanidin T5/cn

E1 1 PROANTHOCYANIDIN T3/CN  
 E2 1 PROANTHOCYANIDIN T4/CN  
 E3 0 --> PROANTHOCYANIDIN T5/CN  
 E4 1 PROANTHOCYANIDIN TETRAMER/CN  
 E5 1 PROANTHOCYANIDINS/CN  
 E6 1 PROANTODIANISIDINE/CN  
 E7 1 PROAPIDAECIN IB/CN  
 E8 1 PROAPIGENINIDIN/CN  
 E9 1 PROAPOLIPOPROTEIN A-I (HUMAN CLONE PNIV 1602 GENE APOA1 PRECURSOR)/CN  
 E10 1 PROAPOLIPOPROTEIN A-I (HUMAN)/CN  
 E11 1 PROAPOLIPOPROTEIN A-I (PIG CLONE P34III)/CN  
 E12 5 PROAPOLIPOPROTEIN A-I (SYNTHETIC HUMAN MUTANT)/CN

=> s E1-E6

1 "PROANTHOCYANIDIN T3"/CN  
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 0 "PROANTHOCYANIDIN T5"/CN  
 1 "PROANTHOCYANIDIN TETRAMER"/CN  
 1 PROANTHOCYANIDINS/CN  
 1 PROANTODIANISIDINE/CN  
 L15 5 ("PROANTHOCYANIDIN T3"/CN OR "PROANTHOCYANIDIN T4"/CN OR "PROANTHOCYANIDIN T5"/CN OR "PROANTHOCYANIDIN TETRAMER"/CN OR PROANTHOCYANIDINS/CN OR PROANTODIANISIDINE/CN)

=> file hcaplus

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USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

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=> s l12/thu or l13/thu or l14/thu or l15/thu  
MISSING OPERATOR

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219 L12/THU  
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905 L13  
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121 L13/THU  
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L16 255 L12/THU OR L13/THU OR L14/THU OR L15/THU

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20691 HYPERCHOLESTEROLEM?  
19658 HYPERLIPIDEM?  
71968 ATHEROSCLEROSIS  
L17 270725 CHOLESTEROL OR HYPERCHOLESTEROLEM? OR HYPERLIPIDEM? OR ATHEROSCLEROSIS

=> s l16 and l17  
L18 20 L16 AND L17

=> s l18 and (PY<2004 or AY<2004 or PRY<2004)  
24050509 PY<2004  
4827719 AY<2004  
4301330 PRY<2004  
L19 6 L18 AND (PY<2004 OR AY<2004 OR PRY<2004)

=> d l19 1-6 ti abs bib

L19 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Search for biologically active novel compounds on the basis of catalytic mechanisms of biosynthetic enzymes  
AB Squalene epoxidase (SE) is a non-cytochrome P 450 flavoprotein monooxygenase that catalyzes the conversion of squalene to (3S)2,3-oxidosqualene, one of the rate-limiting steps of cholesterol biogenesis. Naturally occurring galloyl esters such as (-)-epigallocatechin-3-O-gallate (IC50 = 0.69  $\mu$ M, KI = 0.74  $\mu$ M),

the major components of green tea polyphenols, were found to be potent and selective inhibitors of vertebrate SE. A synthetic n-dodecyl gallate (IC<sub>50</sub> = 0.061  $\mu$ M, KI = 0.033  $\mu$ M) with a hydrophobic side chain showed even more potent inhibition. The presence of galloyl moiety was thus shown to be essential for the enzyme inhibition. The flavin monooxygenase reaction proceeds through formation of the active oxygen species. It was postulated that the enzyme inhibition would be caused by specific binding of gallates to the active site of the enzyme, possibly in close proximity to the FAD binding domain, and by scavenging the reactive oxygen species required for the enzyme reaction. This was supported by mol. modeling studies based on the crystal structure of bacterial p-hydroxybenzoic acid hydroxylase, one of the best characterized flavin monooxygenases that shares 20% amino acid sequence identity with SE.

AN 2003:526423 HCAPLUS <<LOGINID::20100319>>

DN 140:35313

TI Search for biologically active novel compounds on the basis of catalytic mechanisms of biosynthetic enzymes

AU Abe, Ikuro

CS School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka, 422-8526, Japan

SO Natural Medicines (Tokyo, Japan) (2003), 57(2), 44-49

CODEN: NMEDEO; ISSN: 1340-3443

PB Japanese Society of Pharmacognosy

DT Journal

LA Japanese

L19 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

TI DPPH (1,1-diphenyl-2-picrylhydrazyl) radical scavenging activity of flavonoids obtained from some medicinal plants

AB A reactive oxygen species has been implicated in a range of human pathol. diseases such as atherosclerosis and certain cancers. Flavonoids are reported to exhibit various biol. activities, including antioxidative and free radical scavenging activities. Several flavonoids obtained from barley leaves, soybean and some medicinal plants, Silybum marianum, Sophorae Flos, Cinnamon, Ephedrae Herba and Scutellariae Radix, were tested for their DPPH (1,1-diphenyl-2-picrylhydrazyl) radical scavenging activity. The structure-activity relationships suggested that not only the nos. of hydroxy group but also the position of hydroxy group might be important for mediating potent activity.

AN 2001:729087 HCAPLUS <<LOGINID::20100319>>

DN 136:63592

TI DPPH (1,1-diphenyl-2-picrylhydrazyl) radical scavenging activity of flavonoids obtained from some medicinal plants

AU Okawa, Masafumi; Kinjo, Junei; Nohara, Toshihiro; Ono, Masateru

CS Faculty of Pharmaceutical Sciences, Kumamoto University, Kumamoto, 862-0973, Japan

SO Biological & Pharmaceutical Bulletin (2001), 24(10), 1202-1205

CODEN: BPBLEO; ISSN: 0918-6158

PB Pharmaceutical Society of Japan

DT Journal

LA English

OSC.G 32 THERE ARE 32 CAPLUS RECORDS THAT CITE THIS RECORD (32 CITINGS)

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Galloyl esters from rhubarb are potent inhibitors of squalene epoxidase, a key enzyme in cholesterol biosynthesis

AB Galloyl glucoses and galloyl proanthocyanidins obtained from rhubarb (Rhei Rhizoma, Rheum palmatum L., Polygonaceae); e.g. 1,2,6-tri-O-galloyl- $\beta$ -D-glucose (IC<sub>50</sub> = 0.63  $\mu$ M),

1,6-di-O-galloyl-2-O-cinnamoyl- $\beta$ -D-glucose (IC<sub>50</sub> = 0.58  $\mu$ M), procyanidin B-2 3,3'-di-O-gallate (IC<sub>50</sub> = 0.54  $\mu$ M), and procyanidin B-5 3,3'-di-O-gallate (IC<sub>50</sub> = 0.55  $\mu$ M), were found to be potent inhibitors of rat squalene epoxidase (SE). The inhibition at submicromolar level was far more potent than that of chemical synthesized substrate analogs. It was demonstrated for the first time that the cholesterol-lowering effect of rhubarb may be attributed to the potent inhibition activities of SE, a rate-limiting enzyme of cholesterol biogenesis.

AN 2001:26947 HCAPLUS <<LOGINID::20100319>>

DN 134:247103

TI Galloyl esters from rhubarb are potent inhibitors of squalene epoxidase, a key enzyme in cholesterol biosynthesis

AU Abe, Ikuro; Seki, Takahiro; Noguchi, Hiroshi; Kashiwada, Yoshiki

CS School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka, 422-8526, Japan

SO Planta Medica (2000), 66(8), 753-756

CODEN: PLMEAA; ISSN: 0032-0943

PB Georg Thieme Verlag

DT Journal

LA English

OSC.G 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Phospholipid complexes of proanthocyanidin A2 as antiatherosclerotic agents

AB The phospholipid complexes of proanthocyanidin A2 are useful for the prevention and the treatment of atherosclerosis and myocardial and cerebral infarctions. Thus, capsules contained a complex of proanthocyanidin A2 with soya phosphatidylcholine 150, lactose 57, modified starch 40, and Mg stearate 3.0 mg.

AN 2000:441613 HCAPLUS <<LOGINID::20100319>>

DN 133:63992

TI Phospholipid complexes of proanthocyanidin A2 as antiatherosclerotic agents

IN Bombardelli, Ezio; Morazzoni, Paolo

PA Indena S.p.A., Italy

SO PCT Int. Appl., 8 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2000037062	A2	20000629	WO 1999-EP9854	19991213 <--
	WO 2000037062	A3	20000803		
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	IT 98MI2732	A1	20000619	IT 1998-MI2732	19981218 <--
	IT 1304183	B1	20010308		
	CA 2355776	A1	20000629	CA 1999-2355776	19991213 <--
	CA 2355776	C	20080318		
	AU 2000022830	A	20000712	AU 2000-22830	19991213 <--
	AU 763907	B2	20030807		

EP 1140115	A2	20011010	EP 1999-966956	19991213 <--
EP 1140115	B1	20030502		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
HU 2001004665	A2	20020429	HU 2001-4665	19991213 <--
HU 2001004665	A3	20030128		
JP 2002532543	T	20021002	JP 2000-589173	19991213 <--
AT 238803	T	20030515	AT 1999-966956	19991213 <--
PT 1140115	E	20030829	PT 1999-966956	19991213 <--
ES 2197708	T3	20040101	ES 1999-966956	19991213 <--
CN 1146429	C	20040421	CN 1999-814446	19991213 <--
RU 2248798	C2	20050327	RU 2001-116085	19991213 <--
SK 284884	B6	20060202	SK 2001-860	19991213 <--
IL 143751	A	20060705	IL 1999-143751	19991213 <--
PL 197153	B1	20080331	PL 1999-349534	19991213 <--
US 6429202	B1	20020806	US 2001-857804	20010611 <--
NO 2001002944	A	20010614	NO 2001-2944	20010614 <--
HK 1042430	A1	20041008	HK 2002-103200	20020430 <--
PRAI IT 1998-MI2732	A	19981218	<--	
WO 1999-EP9854	W	19991213	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Formulations containing carotenoids an procarotenoids combined with polyphenols for the prevention of the damages due to an abnormal production of free radicals

AB The present invention relates to novel formulations and combinations of lipophilic and hydrophilic antioxidants and the use thereof in the therapeutic, foodstuff, dietetic, and cosmetic fields. These formulations are based on the use of carotenoids, procarotenoids and derivs. thereof with polyphenols of catechic structures. The formulations containing a lipophilic antioxidant and an hydrophilic one, can be used in the prevention of physiopathol. conditions related at least partially to an over-production of free radicals, particularly aging, atherosclerosis and cancer. A lipophilic extract (200 mg) of Lycopersicum esculentum containing

5% of lycopene was mixed with 80 mg of procyanidol oligomers from Vitis vinifera, 50 mg of natural soy phosphatidylcholine and 50 mg of peanut oil. The products were encapsulated in soft gelatin capsules.

AN 1997:471310 HCAPLUS <<LOGINID::20100319>>

DN 127:140557

OREF 127:27017a,27020a

TI Formulations containing carotenoids an procarotenoids combined with polyphenols for the prevention of the damages due to an abnormal production of free radicals

IN Bombardelli, Ezio; Morazzoni, Paolo

PA Indena S.p.A., Italy

SO U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 243,855, abandoned.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 5648377	A	19970715	US 1995-463129	19950605 <--
PRAI	IT 1993-MI2688	A	19931221	<--	
	US 1994-243855	B2	19940517	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)  
 RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Formulations containing carotenoids and procarotenoids combined with polyphenols in the prevention of the damages due to an abnormal production of free radicals.

AB The present invention relates to novel formulations and combinations of lipophilic and hydrophilic antioxidants and the use thereof in the therapeutic, foodstuff, dietetic, and cosmetic fields. These formulations are based on the use of carotenoids, procarotenoids and derivs. thereof with polyphenols of catechic and flavanolignan structures. Said formulations, containing a lipophilic antioxidant and an hydrophilic one at fixed rations, can be used in the prevention of physiopathol. conditions related at least partially to an overprodn. of free radicals, particularly aging, atherosclerosis and cancer.

AN 1995:705558 HCAPLUS <<LOGINID::20100319>>

DN 123:93334

OREF 123:16473a,16476a

TI Formulations containing carotenoids and procarotenoids combined with polyphenols in the prevention of the damages due to an abnormal production of free radicals.

IN Bombardelli, Ezio; Morazzoni, Paolo

PA Indena S.p.A., Italy

SO Eur. Pat. Appl., 8 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 659402	A2	19950628	EP 1994-107676	19940518 <--
	EP 659402	A3	19961218		
	EP 659402	B1	20020313		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	CA 2123739	A1	19950622	CA 1994-2123739	19940517 <--
	CA 2123739	C	20040127		
	AU 9463132	A	19950713	AU 1994-63132	19940517 <--
	AU 677048	B2	19970410		
	AT 214264	T	20020315	AT 1994-107676	19940518 <--
	PT 659402	E	20020628	PT 1994-107676	19940518 <--
	ES 2081781	T3	20020916	ES 1994-107676	19940518 <--
	FI 9402452	A	19950622	FI 1994-2452	19940526 <--
	CN 1111506	A	19951115	CN 1994-106547	19940608 <--
	CN 1082369	C	20020410		
	JP 07196534	A	19950801	JP 1994-128661	19940610 <--
	JP 3604422	B2	20041222		
	HK 1011616	A1	20020802	HK 1998-112884	19981207 <--
PRAI	IT 1993-MI2688	A	19931221	<--	

OSC.G 21 THERE ARE 21 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)

=> s 14 and 117

L20 587 L4 AND L17

=> s 120 and (PY<2003 or AY<2003 or PRY<2003)

22998491 PY<2003

4529436 AY<2003

3999840 PRY<2003

L21 350 L20 AND (PY<2003 OR AY<2003 OR PRY<2003)

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 "HELP COMMANDS" at an arrow prompt (=>).

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	ENTRY	SESSION
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	ENTRY	SESSION
CA SUBSCRIBER PRICE	-5.10	-60.35

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E1      1      PARTIAL Y TO PHAGE RECOMBINASE (SYNECHOCOCCUS STRAIN WH8102
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E2      1      PARTIALLY ARCHAEAL PROTEIN (SULFOLOBUS ACIDOCALDARIUS STRAIN
          DSM 639)/CN
E3      0 --> PARTIALLY HYDROLYZED GUAR/CN
E4      11     PARTIALLY MEMBRANE-SPANNING PROTEIN (METHANOSPHERA STADTMAN
          AE STRAIN DSM 3091)/CN
E5      30     PARTIALLY PROTEIN (METHANOSPHERA STADTMANAE STRAIN DSM 3091
          )/CN
E6      1      PARTIALLY PROTEIN, CARBAMOYL-PHOSPHATE SYNTHASE, LARGE CHAIN
          (METHANOSPHERA STADTMANAE STRAIN DSM 3091)/CN
E7      1      PARTIALLY PROTEIN, GTPASE (METHANOSPHERA STADTMANAE STRAIN
          DSM 3091)/CN
E8      1      PARTICLE (FIFTY FOUR ) (STREPTOCOCCUS PNEUMONIAE STRAIN R6 G
          ENE FFH)/CN
E9      1      PARTICLE PROTEIN (RICKETTSIA CONORI STRAIN MALISH 7 GENE FFH
          )/CN
E10     1      PARTICLE PROTEIN (YERSINIA PESTIS STRAIN CO92 GENE FFH)/CN
E11     1      PARTICLEAR/CN
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E12 1 PARTICOL BX/CN

=> exp phgg/cn

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E2 1 PHGDHL1 PROTEIN (MOUSE STRAIN FVB/N CLONE MGC:37335 IMAGE:4975777)/CN  
E3 0 --> PHGG/CN  
E4 1 PHHB, PTERIN-4-ALPHA-CARBINOLAMINE DEHYDRATASE (BRUCELLA MELITENSIS BIOVAR ABORTUS STRAIN 9-941 GENE PHHB)/CN  
E5 1 PHI/CN  
E6 1 PHI (SWINE)/CN  
E7 4 PHI 27/CN  
E8 1 PHI 27 (CHICKEN)/CN  
E9 1 PHI 27 (GUINEA PIG)/CN  
E10 1 PHI 27 (HUMAN)/CN  
E11 1 PHI 27 (PIG)/CN  
E12 1 PHI 27 (RABBIT)/CN

=> file hcaplus

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=> s manno-oligo? or mannooligo  
2850 MANNO  
381085 OLIGO?

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112 MANNO-OLIGO?
    (MANNO(W)OLIGO?)
0 MANNOOLIGO
L22 112 MANNO-OLIGO? OR MANNOOLIGO

=> s manno-oligo? or mannooligo?
    2850 MANNO
    381085 OLIGO?
    112 MANNO-OLIGO?
        (MANNO(W)OLIGO?)
    1022 MANNOOLIGO?
L23 1084 MANNO-OLIGO? OR MANNOOLIGO?

=> s 117 and 123
L24 20 L17 AND L23

=> s PHGG or (partially hydrolyzed guar)
    39 PHGG
    374301 PARTIALLY
    154957 HYDROLYZED
    13804 GUAR
    64 PARTIALLY HYDROLYZED GUAR
        (PARTIALLY(W)HYDROLYZED(W)GUAR)
L25 68 PHGG OR (PARTIALLY HYDROLYZED GUAR)

=> s 117 and 125
L26 16 L17 AND L25

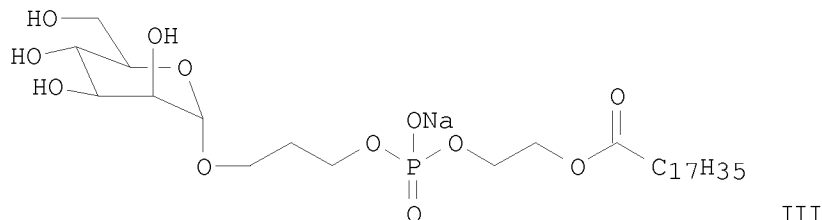
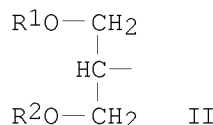
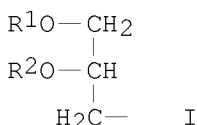
=> s 124 or 126
L27 36 L24 OR L26

=> s 127 and (PY<2004 or AY<2004 or PRY<2004)
    24050509 PY<2004
    4827719 AY<2004
    4301330 PRY<2004
L28 8 L27 AND (PY<2004 OR AY<2004 OR PRY<2004)

=> d 128 1-8 ti abs bib

L28 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN
TI Preparation of acyl glycerol phosphatidylinositol manno-
oligosaccharides as anti-inflammatory agents
GI

```



AB The present invention is directed to synthetic acyl glycerol phosphatidylinositol manno-oligosaccharides having the formula A-B-E-D, wherein A is R, glyceride I and II; R is H, alkyl, acyl; B is phosphate, phosphonate, sulfonate, carbamate, phosphono-thionate; E is a spacer or linker (CH<sub>2</sub>)<sub>n</sub>, (CH<sub>2</sub>)<sub>2</sub>-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub>, cyclohexyl, CHR<sub>3</sub>CHR<sub>4</sub>; R<sub>3</sub> and R<sub>4</sub> are independently H, CH<sub>2</sub>OH, CH<sub>2</sub>, alditol residue; n is 1-40; D comprises at least one sugar moiety selected from the group comprising D-mannose, D-galactose, D-glucose, D-glucosamine, N-acetylglucosamine, and 6-deoxy-L-mannose, wherein when D is more than one sugar moiety, the sugar moiety may comprise a single chain of the same or different sugar moieties, or may comprise two or more sep. sugar moieties or chains of sugar moieties attached to E at different sites; with the proviso that when E is -(CH<sub>2</sub>)<sub>n</sub>- wherein n = 2 to 16, B is phosphate and D is a monosaccharide or an oligosaccharide, R<sub>1</sub> and R<sub>2</sub> of A are not both alkyl. is biol. activity similar to PIM (acyl glycerol phosphatidylinositol manno-oligosaccharide) activity, for use in the treatment and prevention of inflammatory or immune cell mediated diseases or disorders. The disease or disorder is elected from the group comprising asthma, allergic rhinitis, dermatitis, psoriasis, inflammatory bowel disease including Crohn's disease and ulcerative colitis, rheumatoid arthritis, multiple sclerosis, diabetes, systemic lupus erythmatosis and atherosclerosis. Thus, III was prepared and tested in mice as anti-inflammatory agent.

AN 2005:472171 HCAPLUS <<LOGINID::20100319>>

DN 143:7937

TI Preparation of acyl glycerol phosphatidylinositol manno-oligosaccharides as anti-inflammatory agents

IN Singh-Gill, Gurmit; Larsen, David Samuel; Jones, Jeremy David; Severn, Wayne Bruce; Harper, Jacquie Lucille

PA The Malaghan Institute of Medical Research, N. Z.; University of Otago; Agresearch Limited

SO PCT Int. Appl., 99 pp.  
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005049631	A1	20050602	WO 2004-NZ293	20041118 <--
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,			

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 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
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 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,  
 SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

NZ 529603 A 20031219 NZ 2003-529603 20031118 <--  
 US 20080249037 A1 20081009 US 2007-580147 20070330 <--  
 PRAI NZ 2003-529603 A 20031118 <--  
 NZ 2004-533245 A 20040531  
 WO 2004-NZ293 W 20041118

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS CASREACT 143:7937; MARPAT 143:7937

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Dietary effect of guar gum and its partially hydrolyzed product on the lipid metabolism and immune function of Sprague-Dawley rats

AB The dietary effect of the water-soluble dietary fibers (WSDF), guar gum, partially hydrolyzed guar gum (PHGG), glucomannan, highly methoxylated (HM) pectin, on the serum lipid level and Ig (Ig) production of Sprague-Dawley rats was compared with that of water-insol. cellulose. Although serum total cholesterol and triglyceride levels were significantly lower in the rats fed with WSDF than in those fed with cellulose, a decrease in the level of phospholipids was only observed in the rats that had been fed on guar gum or glucomannan. In addition, all WSDF feeding enhanced IgA productivity in the spleen and mesenteric lymph node lymphocyte, although the increase in serum IgA level was only observed in the rats fed on WSDF, and not on PHGG. When mesenteric lymph node lymphocytes were cultured in the presence of various concns. of guar gum or glucomannan, no significant increase in Ig production was apparent. These data suggest that WSDF indirectly enhanced the Ig production of lymphocytes, and that serum lipid reduction and IgA production-enhancing

activities of WSDF were dependent on their mol. sizes.

AN 2000:55670 HCAPLUS <<LOGINID::20100319>>

DN 132:193653

TI Dietary effect of guar gum and its partially hydrolyzed product on the lipid metabolism and immune function of Sprague-Dawley rats

AU Yamada, Koji; Tokunaga, Yoko; Ikeda, Atsushi; Ohkura, Ken-Ichi; Mamiya, Soichi; Kaku, Shihoko; Sugano, Michihiro; Tachibana, Hirofumi

CS Laboratory of Food Chemistry, Department of Bioscience and Biotechnology, Division of Bioresource and Bioenvironmental Sciences, Graduate School of Kyushu University, Fukuoka, 812-8581, Japan

SO Bioscience, Biotechnology, and Biochemistry (1999), 63(12), 2163-2167

CODEN: BBBIEJ; ISSN: 0916-8451

PB Japan Society for Bioscience, Biotechnology, and Agrochemistry

DT Journal

LA English

OSC.G 27 THERE ARE 27 CAPLUS RECORDS THAT CITE THIS RECORD (27 CITINGS)

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Absence of detectable toxicity in rats fed partially hydrolyzed guar gum (K-13) for 13 weeks

AB Toxicity studies were conducted to evaluate acute and subchronic oral toxicity and mutagenicity of partially hydrolyzed guar gum (K-13). In an acute toxicity study, mice and rats were treated with K-13 at a dose of 6000 mg/kg. There were no deaths, so the LD50s were >6000 mg/kg in both species. In a subchronic toxicity study, K-13 was given to rats as a dietary admixt. at concns. of 0.2, 1.0 and 5.0% for 13 wk. There were no effects attributable to K-13 in any examns. K-13 proved to have no mutagenic potential in a reverse mutation test using bacteria.

AN 1997:804255 HCAPLUS <<LOGINID::20100319>>

DN 128:58421

OREF 128:11343a,11346a

TI Absence of detectable toxicity in rats fed partially hydrolyzed guar gum (K-13) for 13 weeks

AU Koujitani, Takatoshi; Oishi, Hidetoshi; Kubo, Yuji; Maeda, Toshihiro; Sekiya, Keiji; Yasuba, Masahi; Matsuoka, Nobuo; Nishimura, Koichi

CS Dep. of Toxicol. and Teratol., Dev. Res. Labs., Dainippon Pharm. Co., Ltd., Osaka, 564, Japan

SO International Journal of Toxicology (1997), 16(6), 611-623  
CODEN: IJTOFN; ISSN: 1091-5818

PB Taylor & Francis

DT Journal

LA English

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI The cholesterol-lowering effect of guar gum is not the result of a simple diversion of bile acids toward fecal excretion

AB The effects of partially hydrolyzed, nonviscous, guar gum (PHGG) on cholesterol metabolism and digestive balance have been compared with those of native guar gum (GUAR) in rats adapted to 0.4% cholesterol diets. Both types of guar gum elicited acidic fermns. in the large intestine, but only GUAR effectively lowered plasma cholesterol ( $P < 0.001$ ), chiefly in the triglyceride-rich lipoprotein fraction. The biliary bile acid excretion was significantly enhanced in rats fed GUAR ( $P < 0.05$ ), as well as the intestinal and cecal bile acid pool ( $P < 0.001$ ). In rats fed GUAR and to a lesser extent in those fed PHGG, the fecal excretion of bile acids and neutral sterol was higher than in controls ( $P < 0.01$ ). The digestive balance (cholesterol intake-steroid excretion) was pos. in control rats (+47  $\mu\text{mol/d}$ ), whereas it was neg. in rats fed GUAR (-20  $\mu\text{mol/d}$ ), which could involve a higher rate of endogenous cholesterol synthesis. In rats fed PHGG, the steroid balance remained slightly pos. Liver 3-hydroxy-3methylglutaryl-CoA (HMG-CoA) reductase activity was very low (22 pmol/min/mg protein), owing to cholesterol supplementation, in control rats or in rats fed PHGG, whereas it was markedly higher (+463%) in rats fed GUAR. In conclusion, even if PHGG does alter some parameters of the enterohepatic cycle of cholesterol and bile acids, its effects are not sufficient to elicit a significant cholesterol-lowering effect. The intestinal (ileal or cecal) reabsorption of bile acids was not reduced, but rather increased, by GUAR; nevertheless the intestinal capacities of reabsorption were overwhelmed by the enlargement of the digestive pool of bile acids. In the present model, induction of HMG-CoA reductase probably takes place in the presence of elevated portal bile acid concns.

AN 1997:680456 HCAPLUS <<LOGINID::20100319>>

DN 127:303178

OREF 127:59115a,59118a

TI The cholesterol-lowering effect of guar gum is not the result of  
a simple diversion of bile acids toward fecal excretion  
AU Favier, Marie-Laure; Bost, Pierre-Etienne; Guittard, Christine; Demigne,  
Christian; Remesy, Christian  
CS Lab. Maladies Metaboliques Micronutriments, INRA Clermon-Ferrand/Theix,  
Ceyrat, 63122, Fr.  
SO Lipids (1997), 32(9), 953-959  
CODEN: LPDSAP; ISSN: 0024-4201  
PB AOCS Press  
DT Journal  
LA English  
OSC.G 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)  
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Functional and physiological properties of partially  
hydrolyzed guar gum.  
AB Partially hydrolyzed guar gum (PHGG  
) is a relatively new food ingredient that has been evaluated for its  
safety, physiol. effects and functionality in food over the past 10 yr.  
Native guar gum is enzymically treated to reduce the average mol. by an order  
of magnitude. This gives a PHGG that still assays and functions  
as a soluble dietary fiber. PHGG is being used in many food  
products in Asia and as a fiber source in medical foods in North America  
and Europe. This talk will focus on the physiol. data that has been  
reported for PHGG, in both animals and humans. Most of this  
data relates to normalization of bowel function. The effect of  
PHGG on gut flora and cholesterol level will also be  
discussed.  
AN 1997:158964 HCAPLUS <<LOGINID::20100319>>  
TI Functional and physiological properties of partially  
hydrolyzed guar gum.  
AU Greenberg, N. A.  
CS Strategic Research Group, Sandoz Nutrition Corporation, Minneapolis, MN,  
55440, USA  
SO Book of Abstracts, 213th ACS National Meeting, San Francisco, April 13-17  
(1997), CARB-031 Publisher: American Chemical Society,  
Washington, D. C.  
CODEN: 64AOAA  
DT Conference; Meeting Abstract  
LA English

L28 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Effect of partially hydrolyzed guar gum on  
fecal output in human volunteers  
AB Partially hydrolyzed guar gum (PHGG  
, average mol. weight 20,000) digested by  $\beta$ -D-mannanase was given as a  
beverage after every meal (36 g 3 times/day) to 8 healthy men for 4 wk.  
Diet with PHGG increased fecal weight and output frequency while  
lowering the pH of feces without affecting fat, protein, or mineral  
excretion. Among the fecal volatile fatty acids, only HOAc significantly  
increased. Total serum cholesterol was reduced by a diet with  
PHGG compared with the controlled diet period, while other serum  
lipid parameters were unaffected. Thus, PHGG increased the  
bulking capacity without affecting the utilization of other nutrients.  
AN 1993:579870 HCAPLUS <<LOGINID::20100319>>  
DN 119:179870  
OREF 119:32143a,32146a  
TI Effect of partially hydrolyzed guar gum on  
fecal output in human volunteers

AU Takahashi, Hidehisa; Yang, Sung Ik; Hayashi, Chiharu; Kim, Mujo; Yamanaka, Junzo; Yamamoto, Takehiko  
CS Cent. Res. Inst., Taiyo Kagaku Co., Ltd., Yokkaichi, 510, Japan  
SO Nutrition Research (New York, NY, United States) (1993), 13(6), 649-57  
CODEN: NTRSDC; ISSN: 0271-5317  
DT Journal  
LA English  
OSC.G 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS RECORD (23 CITINGS)

L28 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Effects of partially hydrolyzed guar gum on postprandial plasma glucose and lipid levels in humans  
AB Guar gum, a dietary fiber, partially hydrolyzed enzymically, gives a solution of lower viscosity than intact guar gum. In this study, the authors investigated the influence of partially hydrolyzed guar gum on blood glucose and lipid levels in healthy humans. A glucose tolerance test was performed by giving 15 g of partially hydrolyzed guar gum dissolved in 150 mL of water and 75 g of glucose dissolved in 200 mL of water to each of 5 healthy volunteers. Ingestion of partially hydrolyzed guar gum tended to suppress the increases in both blood glucose and insulin, and there was significant suppression of glucose and insulin levels at 60 min and 90 min after glucose administration, resp. However, there was no delay in the glucose level peak time. In a lipid tolerance test, each of 6 healthy volunteers was given an omelette prepared from 50 g butter and 5 eggs, followed by 15 g of partially hydrolyzed guar gum dissolved in 150 mL of water. Blood total cholesterol, LDL, VLDL, and phospholipid tended to be reduced by the intake of partially hydrolyzed guar gum. The levels of some of these lipids were significantly decreased at various times after the intake of partially hydrolyzed guar gum.

AN 1993:516199 HCAPLUS <<LOGINID::20100319>>

DN 119:116199

OREF 119:20885a,20888a

TI Effects of partially hydrolyzed guar gum on postprandial plasma glucose and lipid levels in humans

AU Yamatoya, Kazuhiko; Sekiya, Keiji; Yamada, Hiroyuki; Ichikawa, Tomio  
CS Food, Food Addit. Chem. Div., Dainippon Pharm. Co., Ltd., Osaka, 541, Japan

SO Nippon Eiyo, Shokuryo Gakkaishi (1993), 46(3), 199-203  
CODEN: NESGDC; ISSN: 0287-3516

DT Journal

LA Japanese

OSC.G 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

L28 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Food fibers with low contents of electrolytes as medications

AB Food fibers isolated from guar gum, tamarind-seed gum, or locust bean gum containing  $\leq 0.1$  g electrolytes/100 g are given to patients with renal diseases for lowering blood cholesterol level and improving bowel movement. For example, guar gum was treated with plant tissue degrading enzymes (galactomannase, cellulase) to give partially-hydrolyzed guar gum. The hydrolyzate was passed through ion exchangers in chromatog. column to decrease electrolyte content. The eluate was concentrated and spray-dried, and the resulting powder was made into tablets.

AN 1992:658247 HCAPLUS <<LOGINID::20100319>>

DN 117:258247

OREF 117:44531a,44534a

TI Food fibers with low contents of electrolytes as medications  
 IN Otsu, Keiji; Yamada, Hiroyuki; Sekiya, Keiji; Uno, Yoichiro; Owaya,  
 Kazuhiko  
 PA Dainippon Pharmaceutical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 04210639	A	19920731	JP 1990-339461	19901130 <--
PRAI	JP 1990-339461		19901130	<--	

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PASSWORD:

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 FILE 'HCAPLUS' ENTERED AT 17:53:50 ON 19 MAR 2010  
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FULL ESTIMATED COST	30.62	491.18
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-6.80	-67.15

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=> s methyl(4a)((mannooligosaccharide) or (manno-oligosacchride) or oligomannose)
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    2850 MANNO
        9 OLIGOSACCHRIDE
        0 MANNO-OLIGOSACCHRIDE
          (MANNO(W)OLIGOSACCHRIDE)
    369 OLIGOMANNOSE
L29      0 METHYL(4A)((MANNOOLOGOSACCHARIDE) OR (MANNO-OLIGOSACCHRIDE) OR
          OLIGOMANNOSE)
  
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=> s methyl(4a)((mannooligosaccharide) or (manno-oligosaccharide) or oligomannose)
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        260 MANNOOLIGOSACCHARIDE
    2850 MANNO
    34691 OLIGOSACCHARIDE
        42 MANNO-OLIGOSACCHARIDE
          (MANNO(W)OLIGOSACCHARIDE)
    369 OLIGOMANNOSE
L30      1 METHYL(4A)((MANNOOLIGOSACCHARIDE) OR (MANNO-OLIGOSACCHARIDE) OR
          OLIGOMANNOSE)
  
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=> d l30 ti abs bib

L30 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Synthetic studies on cell-surface glycans. Part 12. Proton and carbon-13  
 NMR spectral study of synthetic methyl D-mannooligosaccharides  
 AB 1H- and 13C-NMR spectra for 16 synthetic Me manno-oligosaccharides were  
 recorded, and the signals for the anomeric protons and anomeric carbon  
 atoms in branched manno-pentaosides and -hexaosides were assigned, based  
 on the data for Me manno-biosides and -triosides. These NMR data  
 identified the branching pattern of high-mannose types of glycans of  
 glycopeptides with those of unambiguously synthesized  
 manno-oligosaccharides, and confirmed the structures proposed for such  
 glycans.  
 AN 1982:123143 HCAPLUS <<LOGINID::20100319>>  
 DN 96:123143  
 OREF 96:20233a,20236a  
 TI Synthetic studies on cell-surface glycans. Part 12. Proton and carbon-13  
 NMR spectral study of synthetic methyl D-mannooligosaccharides  
 AU Ogawa, Tomoya; Sasajima, Kikuo  
 CS Inst. Phys. Chem. Res., Wako, 351, Japan  
 SO Carbohydrate Research (1981), 97(2), 205-27  
 CODEN: CRBRAT; ISSN: 0008-6215  
 DT Journal  
 LA English  
 OSC.G 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)

=> s methyl and ((mannooligosaccharide) or (manno-oligosaccharide) or oligomannose)  
 1137737 METHYL  
 260 MANNOOLIGOSACCHARIDE  
 2850 MANNO  
 34691 OLIGOSACCHARIDE  
 42 MANNO-OLIGOSACCHARIDE  
 (MANNO(W)OLIGOSACCHARIDE)  
 369 OLIGOMANNOSE  
 L31 22 METHYL AND ((MANNOOLIGOSACCHARIDE) OR (MANNO-OLIGOSACCHARIDE)  
 OR OLIGOMANNOSE)  
 => s l31 and (PY<2004 or AY<2004 or PRY<2004)  
 24050509 PY<2004  
 4827719 AY<2004  
 4301330 PRY<2004  
 L32 14 L31 AND (PY<2004 OR AY<2004 OR PRY<2004)  
 => d l31 1-14 ti abs bib

L31 ANSWER 1 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Contribution of complement component C3 and complement receptor type 3 to  
 carbohydrate-dependent uptake of oligomannose-coated liposomes  
 by peritoneal macrophages  
 AB Peritoneal macrophages (PEMs) preferentially and rapidly take up  
 oligomannose-coated liposomes (OMLs) and subsequently mature to  
 induce a Th-1 immune response following administration of OMLs into the  
 peritoneal cavity. Here, the authors examine the contributions of  
 complement component C3 and complement receptor type 3 (CR3) to  
 carbohydrate-dependent uptake of OMLs by PEMs. Effective uptake of OMLs  
 into PEMs in vitro was observed only in the presence of peritoneal fluid  
 (PF), and OMLs incubated with PF were incorporated by PEMs in vitro in the  
 absence of PF. These phenomena were inhibited by methyl  
 - $\alpha$ -mannoside, N-acetylglucosamine or EDTA, but not by galactose.  
 Pull-down anal. followed by peptide mass fingerprinting of PF-treated OMLs  
 indicated that the OMLs were opsonized with complement fragment iC3b. In  
 vivo uptake of OMLs by PEMs was inhibited by i.p. injection of an antibody  
 against CR3, a receptor for iC3b, and OML uptake by PEMs in the peritoneal

cavity was not observed in C3-deficient mice. Thus, OMLs are opsonized with iC3b in a mannose-dependent manner in the peritoneal cavity and then incorporated into PEMs via CR3.

AN 2009:19097 HCAPLUS <<LOGINID::20100319>>

DN 150:53954

TI Contribution of complement component C3 and complement receptor type 3 to carbohydrate-dependent uptake of oligomannose-coated liposomes by peritoneal macrophages

AU Abe, Yu; Kuroda, Yasuhiro; Kuboki, Noritaka; Matsushita, Misao; Yokoyama, Naoaki; Kojima, Naoya

CS Department of Applied Biochemistry, Tokai University, Hiratsuka, Kanagawa, 259-1292, Japan

SO Journal of Biochemistry (2008), 144(5), 563-570

CODEN: JOBIAO; ISSN: 0021-924X

PB Japanese Biochemical Society

DT Journal

LA English

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Structural basis for mannose recognition by a lectin from opportunistic bacteria Burkholderia cenocepacia

AB Chronic colonization of the lungs by opportunistic bacteria such as Pseudomonas aeruginosa and members of the Bcc (Burkholderia cepacia complex) is the major cause of morbidity and mortality among CF (cystic fibrosis) patients. PA-IIL (lecB gene), a soluble lectin from Ps. aeruginosa, has been the subject of much interest because of its very strong affinity for fucose. Orthologues have been identified in the opportunistic bacteria Ralstonia solanacearum, Chromobacterium violaceum and Burkholderia of Body centered cubic The genome of the J2315 strain of B. cenocepacia, responsible for epidemic in CF centers, contains three genes that code for proteins with PA-IIL domains. The shortest gene was cloned in Escherichia coli and pure recombinant protein, BclA (B. cenocepacia lectin A), was obtained. The presence of native BclA in B. cenocepacia exts. was checked using a proteomic approach. The specificity of recombinant BclA was characterized using surface plasmon resonance showing a preference for mannosides and supported with glycan array expts. demonstrating a strict specificity for oligomannose-type N-glycan structures. The interaction thermodyn. of BclA with Me  $\alpha$ -D-mannoside demonstrates a dissociation constant (Kd) of  $2.75 \times 10^{-6}$  M. The X-ray crystal structure of the complex with Me  $\alpha$ -D-mannoside was determined at 1.7 Å (1 Å = 0.1 nm) resolution The lectin forms homodimers with one binding site per monomer, acting co-operatively with the second dimer site. Each monomer contains two Ca<sup>2+</sup> ions and one sugar ligand. Despite strong sequence similarity, the differences between BclA and PA-IIL in their specificity, binding site and oligomerization mode indicate that the proteins should have different roles in the bacteria.

AN 2008:378794 HCAPLUS <<LOGINID::20100319>>

DN 148:443059

TI Structural basis for mannose recognition by a lectin from opportunistic bacteria Burkholderia cenocepacia

AU Lameignere, Emilie; Malinovska, Lenka; Slavikova, Margita; Duchaud, Eric; Mitchell, Edward P.; Varrot, Annabelle; Sedo, Ondrej; Imberty, Anne; Wimmerova, Michaela

CS CERMAV-CNRS (affiliated with Universite Joseph Fourier and belonging to ICMG), Grenoble, F-38041, Fr.

SO Biochemical Journal (2008), 411(2), 307-318

CODEN: BIJOAK; ISSN: 0264-6021

PB Portland Press Ltd.

DT Journal

LA English

OSC.G 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Antibody- and Fc fusion protein-based therapeutics with enhanced ADCC activity

AB Methods for producing antibody-based therapeutics with enhanced ADCC activity are disclosed. In examples, CHO and hybridoma cells engineered to express antibodies were cultured in the presence of the  $\alpha$ -mannosidase I inhibitor, kifunensine. The treatment of cells with kifunensine resulted in the production of antibodies carrying oligomannose-type N-glycans, while the formation of complex-type N-glycans was blocked. The antibodies carrying oligomannose-type glycans exhibited enhanced ADCC activity compared to the same antibodies produced without the kifunensine treatment. Thus, antibodies and Fc fusion proteins carrying oligomannose-type N-glycans are useful for various therapies in which Fc-directed killing of target cells is desirable, for example treating cancers, autoimmune diseases, and other diseases.

AN 2007:464427 HCAPLUS <<LOGINID::20100319>>

DN 146:460605

TI Antibody- and Fc fusion protein-based therapeutics with enhanced ADCC activity

IN McPherson, John M.; Edmunds, Tim; Zhou, Qun

PA Genzyme Corp., USA

SO PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007048122	A2	20070426	WO 2006-US60113	20061020
	WO 2007048122	A3	20070920		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
	CA 2626556	A1	20070426	CA 2006-2626556	20061020
	US 20070092521	A1	20070426	US 2006-551679	20061020
	EP 1945665	A2	20080723	EP 2006-846120	20061020
	R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
	JP 2009512697	T	20090326	JP 2008-536643	20061020
PRAI	US 2005-728947P	P	20051021		
	WO 2006-US60113	W	20061020		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L31 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Purification of 3 monomeric monocot mannose-binding lectins and their evaluation for antipoxviral activity: potential applications in multiple viral diseases caused by enveloped viruses

AB Three monomeric monocot lectins from *Zephyranthes carinata*, *Zephyranthes candida*, and *Gloriosa superba* with carbohydrate specificity towards mannose derivs. and (or) oligomannose have been isolated and purified from their storage tissues. The lectins were purified by anion-exchange chromatog. on DEAE-Sephacyl and by gel filtration chromatog. on Biogel P-200 followed by high-performance liquid chromatog. The purified lectins, *Z. carinata*, *Z. candida*, and *G. superba* had mol. masses of 12, 11.5, and 12.5 kDa, resp., as determined by gel filtration and SDS-PAGE, indicating that they are monomers. In a hapten inhibition assay, methyl- $\alpha$ -D-mannopyranoside inhibited agglutination of both *Z. candida* and *Z. carinata*; the latter was also inhibited by Man( $\alpha$ 1-2)Man and Man( $\alpha$ 1-3)Man. *Gloriosa superba* showed inhibition only with Man( $\alpha$ 1-4)Man of all of the sugars and glycoproteins tested. All purified lectins agglutinated red blood cells from rabbit, whereas *G. superba* was also reactive towards erythrocytes from guinea pig. All of the lectins were nonglycosylated and did not require metal ions for their activity. They were labile above 60° and were affected by denaturing agents such as urea, thiourea, and guanidine-HCl. The lectins were virtually nonmitogenic, like other members of Amaryllidaceae and Liliaceae. Of the 3 lectins, *G. superba* was found to be highly toxic to the BSC-1 cell line (African green monkey kidney epithelial cells), while both of the *Zephyranthes* species showed significant in vitro inhibition of poxvirus replication in BSC-1 cells without any toxic effects to the cells. In addition, *Z. candida* also exhibited significant anticancer activity against SNB-78, a CNS human cancer cell line.

AN 2007:407425 HCAPLUS <<LOGINID::20100319>>

DN 146:394419

TI Purification of 3 monomeric monocot mannose-binding lectins and their evaluation for antipoxviral activity: potential applications in multiple viral diseases caused by enveloped viruses

AU Kaur, Amandeep; Kamboj, Sukhdev Singh; Singh, Jatinder; Singh, Rajinder; Abrahams, Melissa; Kotwal, Girish J.; Saxena, A. K.

CS Department of Molecular Biology and Biochemistry, Guru Nanak Dev University, Amritsar, 143 005, India

SO Biochemistry and Cell Biology (2007), 85(1), 88-95  
CODEN: BCBIEQ; ISSN: 0829-8211

PB National Research Council of Canada

DT Journal

LA English

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

TI The use of cysteamine and its derivatives in avian influenza vaccine for improving its immunity

AB The invention pertains to the use of cysteamine and its derivs. e.g. CoA, taurine, cystamine, pantethine or cysteamine precursor in avian influenza vaccine (H5N1 or H5N2) for improving its immunity. Cysteamine and its derivs. (about 30%) can be formulated with stabilizer (10%), filler, binder (5-40%), coating carrier and corrective etc and added to fodder at a concentration about 50-1000 ppm. Cysteamine and its derivs., with a concentration

about 0.25-75%, can also be formulated with vitamin C 0.1-5%, soluble vitamin E 0.1-5%, oligo-mannose 1-7.5%, D-ribose 0.2-7.5% and physiol. saline in balance into injections.

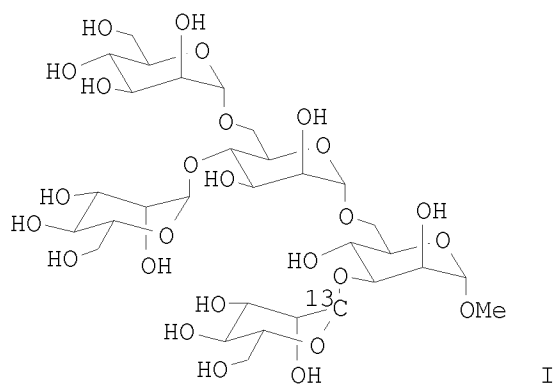
AN 2007:5876 HCAPLUS <<LOGINID::20100319>>  
 DN 146:140988  
 TI The use of cysteamine and its derivatives in avian influenza vaccine for improving its immunity  
 IN Wen, Qintang; Chi, Hao; Xu, Jinxian  
 PA Walcom Animal Science (I.P.5) Limited, Peop. Rep. China  
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 14pp.  
 CODEN: CNXXEV  
 DT Patent  
 LA Chinese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	CN 1883705	A	20061227	CN 2006-10081439	20060519
PRAI	CN 2006-10081439		20060519		

L31 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI Indentification of locust bean gum hydrolysates by Trichoderma harzianum  $\beta$ -mannanase and their growth activity to Bifidobacterium spp.  
 AB This study was performed to elucidate substrate specificity of Trichoderma harzianum  $\beta$ -mannanase to the locust bean gum galatomannan. The medium composition for enzyme production was: 3% cellulose, 3% corn steep liquor, 1% KH<sub>2</sub>PO<sub>4</sub>, 0.2% (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, and incubation was 115 h at 28°C. The  $\beta$ -mannanase exhibited maximum activity at pH 4.5 and 60°. Locust bean gum galactomannan was hydrolyzed by the  $\beta$ -mannanase, and then the hydrolyzates were separated by activated carbon column chromatog. By TLC was shown that the main hydrolyzates were composed of D.P 4 and 7 galactosyl mannoooligosaccharides. The structure of D.P4 and 7 oligosaccharides was elucidated by methylation anal. To investigate the effects of locust bean gum galactosyl mannoooligosaccharides on the in vitro growth of Bifidobacterium longum, B. bifidum, and B. breve, the bifidobacteria were cultivated individually on the modified-MRS medium containing carbon source such as D.P 4 and 7 galactosyl mannoooligosaccharides. B. longum grew up 3.4-fold and 4.3-fold more effectively by the replacement of D.P 4 and 7 galactosyl mannoooligosaccharides as the carbon source comparing to the standard MRS.

AN 2006:73123 HCAPLUS <<LOGINID::20100319>>  
 DN 145:412917  
 TI Indentification of locust bean gum hydrolysates by Trichoderma harzianum  $\beta$ -mannanase and their growth activity to Bifidobacterium spp.  
 AU Kim, Yu-Jin; Park, Gwi-Gun  
 CS Department of Food and Bioengineering, Kyungwon University, Seoungnam, 461-701, S. Korea  
 SO Han'guk Eungyong Sangmyong Hwahakhoeji (2005), 48(4), 364-369  
 CODEN: HESHA; ISSN: 1738-2203  
 PB Korean Society for Applied Biological Chemistry  
 DT Journal  
 LA Korean

L31 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN  
 TI An easy access to a 3,6-branched mannopentaoside bearing one terminal [1-13C]-labeled D-mannopyranose residue  
 GI



AB Me 2,4-di-O-benzoyl- $\alpha$ -D-mannopyranoside was used as a key intermediate in the synthesis of 3,6-branched mannopentaoside I bearing one terminal D-[1- $^{13}$ C]mannopyranose residue via mannosylation.

AN 2005:1281559 HCAPLUS <<LOGINID::20100319>>

DN 145:438813

TI An easy access to a 3,6-branched mannopentaoside bearing one terminal [1- $^{13}$ C]-labeled D-mannopyranose residue

AU Abronina, P. I.; Backinowsky, L. V.; Grachev, A. A.; Sedinkin, S. L.; Malysheva, N. N.

CS N. D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Moscow, 119991, Russia

SO Russian Chemical Bulletin (2005), 54(5), 1287-1293  
CODEN: RCBUEY; ISSN: 1066-5285

PB Springer

DT Journal

LA English

OS CASREACT 145:438813

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Determination of infection by the immune response to a carbohydrate moiety

AB The author discloses a method determining a viral infection by detecting immune reactivity against a carbohydrate moiety associated with the virus. In one example, antibodies to the oligomannose determinant on human immunodeficiency virus are detected by ELISA using immobilized gp120.

AN 2005:903092 HCAPLUS <<LOGINID::20100319>>

DN 143:227914

TI Determination of infection by the immune response to a carbohydrate moiety

IN Fish, Falk

PA Inverness Medical Switzerland GmbH, Switz.

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005078443	A1	20050825	WO 2005-IL167	20050210
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,			

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
MR, NE, SN, TD, TG

PRAI US 2004-543928P P 20040213

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Identification of a novel mannose-capped lipoarabinomannan from  
*Amycolatopsis sulphurea*

AB The genus *Amycolatopsis* is a member of the phylogenetic group nocardioform  
actinomycetes, which also includes the genus *Mycobacterium*. Members of  
this group have a characteristic cell envelope structure, dominated by  
various complex lipids and polysaccharides. Amongst these, lipoglycans  
are of particular interest since mycobacterial lipoarabinomannans are  
important immunomodulatory mol. In this study we report the isolation  
and structural characterization of *Amycolatopsis sulphurea*  
lipoarabinomannan, designated AsuLAM. SDS/PAGE anal. revealed that AsuLAM  
was of an intermediate size between *Mycobacterium tuberculosis*  
lipoarabinomannan and lipomannan, confirmed by matrix-assisted  
laser-desorption ionization-time-of-flight mass spectrometry that  
predicted an average mol. mass of 10 kDa. Using a range of chemical degrades.,  
NMR expts. and capillary electrophoresis anal., AsuLAM was revealed as an  
original structure. The mannosyl-phosphatidyl-myo-inositol anchor  
exhibits a single acyl-form, characterized by a diacylated glycerol  
moiety, and contains, as one of the main fatty acids, 14-methyl  
-pentadecanoate, a characteristic fatty acid of the *Amycolatopsis* genus.  
AsuLAM also contains a short mannan domain; and is dominated by a  
multi-branched arabinan domain, composed of an ( $\alpha$ 1 $\rightarrow$ 5)-Araf  
(arabinofuranose) chain substituted, predominately at the O-2 position, by  
a single  $\beta$ -Araf. The arabinan domain is further elaborated by  
mannooligosaccharide caps, with around one per mol. This is the  
first description of mannoooligosaccharide caps found in a  
nonmycobacterial LAM. AsuLAM was unable to induce the production of the  
pro-inflammatory cytokine tumor necrosis factor  $\alpha$  when tested with  
human or murine macrophage cell lines, reinforcing the paradigm that  
mannose-capped LAM are poor inducers of pro-inflammatory cytokines.

AN 2003:442035 HCAPLUS <<LOGINID::20100319>>

DN 139:304229

TI Identification of a novel mannose-capped lipoarabinomannan from  
*Amycolatopsis sulphurea*

AU Gibson, Kevin J. C.; Gilleron, Martine; Constant, Patricia; Puzo, Germain;  
Nigou, Jerome; Besra, Gurdyal S.

CS Department of Microbiology and Immunology, University of Newcastle,  
Newcastle-upon-Tyne, NE2 4HH, UK

SO Biochemical Journal (2003), 372(3), 821-829  
CODEN: BIJOAK; ISSN: 0264-6021

PB Portland Press Ltd.

DT Journal

LA English

OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

TI New mannotrioses and trimannosides as potential ligands for  
mannose-specific binding proteins

AB The  $\alpha$ -D-mannopyranosyl and 3,6-di-O-( $\alpha$ -D-mannopyranosyl)-

$\alpha$ -D-mannopyranosyl neoglycolipids and the branched and cluster trimannosidic acids have been made in connection with studies of liposomes as transporters of antigens to dendritic cells.

AN 2002:790625 HCAPLUS <<LOGINID::20100319>>

DN 138:153724

TI New mannotriosides and trimannosides as potential ligands for mannose-specific binding proteins

AU Furneaux, Richard H.; Pakulski, Zbigniew; Tyler, Peter C.

CS Industrial Research Ltd., Lower Hutt, N. Z.

SO Canadian Journal of Chemistry (2002), 80(8), 964-972

CODEN: CJCHAG; ISSN: 0008-4042

PB National Research Council of Canada

DT Journal

LA English

OS CASREACT 138:153724

OSC.G 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Molecular and enzymic properties of recombinant 1,2- $\alpha$ -mannosidase from *Aspergillus saitoi* overexpressed in *Aspergillus oryzae* cells

AB For the construction of an over-expression system of the intracellular 1,2- $\alpha$ -mannosidase (EC 3.2.1.113) gene (msdS) from *Aspergillus saitoi* (now designated *Aspergillus phoenicis*), the N-terminal signal sequence of the gene was replaced with that of the aspergillopepsin I (EC 3.4.23.18) gene (apnS) signal, one of the same strains as described previously. Then the fused 1,2- $\alpha$ -mannosidase gene (f-msdS) was inserted into the NotI site between P-No8142 and T-agdA in the plasmid pNAN 8142 (9.5 kbp) and thus the *Aspergillus oryzae* expression plasmid pNAN-AM1 (11.2 kbp) was constructed. The fused f-msdS gene has been over-expressed in a transformant *A. oryzae* niaD AM1 cell. The recombinant enzyme expressed in *A. oryzae* cells was purified to homogeneity in two steps. The system is capable of making as much as about 320 mg of the enzyme/L of culture. The recombinant enzyme has activity with methyl -2-O- $\alpha$ -D-mannopyranosyl  $\alpha$ -D-mannopyranoside at pH 5.0, while no activity was determined with methyl-3-O- $\alpha$ -D-mannopyranosyl  $\alpha$ -D-mannopyranoside or methyl-6-O- $\alpha$ -D-mannopyranosyl  $\alpha$ -D-mannopyranoside. The substrate specificity of the enzyme was analyzed by using pyridylaminated (PA)-oligomannose-type sugar chains, Man<sub>9</sub>-6(GlcNAc)<sub>2</sub>-PA (Man is mannose; GlcNAc is N-acetylglucosamine). The enzyme hydrolyzed Man<sub>8</sub>GlcNAc<sub>2</sub>-PA (type M8A) fastest, and M6C {Man $\alpha$ 1-3[Man $\alpha$ 1-2Man $\alpha$ 1-3(Man $\alpha$ 1-6)Man $\alpha$ 1-6]Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAc-PA} slowest, among the PA-sugar chains. Mol.-mass values of the enzyme were determined to be 63 kDa by SDS/PAGE and 65 kDa by gel filtration on Superose 12, resp. The pI value of the enzyme was 4.6. The N-terminal amino acid sequence of the enzyme was GSTQSRADAIKAAFSHAWDGYLQY, and sequence anal. indicated that the signal peptide from apnS gene was removed. The molar absorption coefficient,  $\epsilon$ , at 280 nm was determined as 91,539 M<sup>-1</sup> cm<sup>-1</sup>. Contents of the secondary structure ( $\alpha$ -helix,  $\beta$ -structure and the remainder of the enzyme) by far-UV CD determination were about 55, 38 and 7%, resp. The melting temperature, T<sub>m</sub>, of the enzyme was 71°C by differential scanning calorimetry. The calorimetric enthalpy,  $\Delta H_{cal}$ , of the enzyme was calculated as 13.3 kJ kg of protein<sup>-1</sup>. Determination of 1 g-atom of Ca<sup>2+</sup>/mol

of

enzyme was performed by atomic-absorption spectrophotometry.

AN 1999:456823 HCAPLUS <<LOGINID::20100319>>

DN 131:254073

TI Molecular and enzymic properties of recombinant 1,2- $\alpha$ -mannosidase from *Aspergillus saitoi* overexpressed in *Aspergillus oryzae* cells

AU Ichishima, Eiji; Taya, Noriyuki; Ikeguchi, Masamichi; Chiba, Yasunori;  
Nakamura, Motoyoshi; Kawabata, Choko; Inoue, Takashi; Takahashi, Koji;  
Minetoki, Toshiki; Ozeki, Kenji; Kumagai, Chieko; Gomi, Katsuya; Yoshida,  
Takashi; Nakajima, Tasuku  
CS Department of Bioengineering, Faculty of Engineering, Soka University,  
Tokyo, 192-8577, Japan  
SO Biochemical Journal (1999), 339(3), 589-597  
CODEN: BIJOAK; ISSN: 0264-6021  
PB Portland Press Ltd.  
DT Journal  
LA English  
OSC.G 29 THERE ARE 29 CAPLUS RECORDS THAT CITE THIS RECORD (29 CITINGS)  
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Difference in binding-site architecture of the serum-type and liver-type  
mannose-binding proteins  
AB The carbohydrate-recognition domains (CRDs) of the serum-type and the  
liver-type mannose-binding proteins (MBPs) from rat display different  
binding characteristics toward mannose-rich oligosaccharides derived from  
N-glycosides, despite the overall similarity in their binding site  
architecture, oligomeric status, and actual binding specificity at the  
monosaccharide level. The liver-type MBP CRD of rat (MBP-C) bound Me  
glycosides of certain mannobioses and -trioses, which are part of the  
mannose-rich N-glycoside, more tightly than Me  $\alpha$ -mannopyranoside.  
In contrast, the serum-type MBP CRD of rat (MBP-A) bound all the Me  
glycosides of manno-oligosaccharide and Me  
 $\alpha$ -mannopyranoside with similar affinities. The mannobioses and  
-triose most strongly bound to MBP-C CRD were Man $\alpha$ -OMe and  
Man $\alpha$  (1-2)Man $\alpha$ (1-6)Man $\alpha$ -OMe, resp. From these and other  
data, it is postulated that the binding site of MBP-C has an extended area  
of interaction, probably the size of a mannotriose, whereas MBP-A  
interacts essentially with one mannose residue.  
AN 1997:311948 HCAPLUS <<LOGINID::20100319>>  
DN 127:30587  
OREF 127:5805a,5808a  
TI Difference in binding-site architecture of the serum-type and liver-type  
mannose-binding proteins  
AU Lee, Reiko T.; Lee, Yuan C.  
CS Dep. of Biology, Johns Hopkins Univ., Baltimore, MD, 21218, USA  
SO Glycoconjugate Journal (1997), 14(3), 357-363  
CODEN: GLJOEW; ISSN: 0282-0080  
PB Chapman & Hall  
DT Journal  
LA English  
OSC.G 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)  
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Characterization of a 180 kDa molecule apparently reactive with  
recombinant L-selectin  
AB In the present study we identified a 180 kDa mol. (p180) in rat lymph  
nodes (LN) apparently reactive with silkworm derived recombinant  
L-selectin (LEC-IgG) in a Ca<sup>2+</sup>-dependent manner. Anal. of amino acid  
sequence revealed that p180 has a strong homol. to the macrophage mannose  
receptor (MMR), which was corroborated by the observation that p180  
reacted with polyclonal anti-alveolar MMR antibody and  
mannosyl-BSA-agarose. In agreement with this notion, the binding of p180  
to the silkworm LEC-IgG was inhibited by  $\alpha$ -methyl

- $\delta$ -mannoside. However, in sharp contrast to its reactivity against the silkworm LEC-IgG, p180 failed to bind LEC-IgG produced by COS-7 cells, suggesting that p180 reacted with the silkworm LEC-IgG through the recognition of oligomannose-type oligosaccharides expressed on the silkworm products and that the lectin activity of L-selectin was not involved in the interaction. These results, together with the immunohistochem. studies showing that p180 was absent from the majority of high endothelial venules (HEV) but present in medullary macrophages, led us to conclude that p180 obtained from LN lysates by the use of the silkworm LEC-IgG is not a physiol. ligand for L-selectin, warning against the use of recombinant proteins expressed in the baculovirus/silkworm expression system for the detection of carbohydrate ligands.

AN 1997:311850 HCAPLUS <<LOGINID::20100319>>

DN 127:32752

OREF 127:6329a,6332a

TI Characterization of a 180 kDa molecule apparently reactive with recombinant L-selectin

AU Kawashima, Hiroto; Watanabe, Norifumi; Li, Yong-Fei; Hirose, Mayumi; Miyasaka, Masayuki

CS Dep. of Bioregulation, Biomedical Research Center, Osaka University Medical School, Suita, 565, Japan

SO Glycoconjugate Journal (1997), 14(3), 321-330  
CODEN: GLJOEW; ISSN: 0282-0080

PB Chapman & Hall

DT Journal

LA English

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

TI A comparison of the fine saccharide-binding specificity of Dioclea grandiflora lectin and concanavalin A

AB The lectin from the seeds of Dioclea grandiflora (DGL) is a Man/Glc-specific tetrameric protein with phys. and saccharide-binding properties reported to be similar to that of the jack bean lectin Con A. Unlike other plant lectins, both DGL and ConA bind with high affinity to the core trimannoside moiety, 3,6-di-O-( $\alpha$ -D-mannopyranosyl)- $\alpha$ - $\delta$ -mannopyranoside, which is present in all asparagine-linked carbohydrates. Hemagglutination inhibition techniques were used to investigate binding of DGL and ConA to a series of mono- and dideoxy analogs of Me 3,6-di-O-( $\alpha$ -D-mannopyranosyl)- $\alpha$ -D-mannopyranoside and to a series of asparagine-linked oligomannose and complex oligosaccharides and glycopeptides. Thus, both DGL and ConA recognize epitopes on all three residues of the trimannoside: the 3-, 4-, and 6-hydroxyl groups of the  $\alpha$ (1 6)Man residue, the 3-hydroxyl group of the  $\alpha$ (1-3)Man residue, and the 2- and 4-hydroxyl groups of the central Man residue of the core trimannoside. However, unlike ConA, DGL does not bind to biantennary complex carbohydrates. This was confirmed by showing that biantennary complex glycopeptides do not bind to a DGL-Sepharose affinity column. Unlike ConA, DGL does not show enhanced affinity for a large N-linked oligomannose carbohydrate (Man<sub>9</sub> glycopeptide) relative to the trimannoside. Thus, DGL and ConA share similar epitope recognition of the core trimannoside moiety. However, they exhibit differences in their fine specificities for larger N-linked oligomannose and complex carbohydrates.

AN 1997:3989 HCAPLUS <<LOGINID::20100319>>

DN 126:183825

OREF 126:35445a,35448a

TI A comparison of the fine saccharide-binding specificity of Dioclea grandiflora lectin and concanavalin A

AU Gupta, Dipti; Oscarson, Stefan; Raju, T. Shantha; Stanley, Pamela; Toone,  
Eric J.; Brewer, C. Fred  
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